A METHOD FOR DESIGNING A COMPOUND BASED ON THE THREE DIMENSIONAL STRUCTURE OF PHOSPHOINOSITIDE DEPENDENT PROTEIN KINASE 1 (PDK1)

Cross-reference to Related Application

5   The present application is the US national phase under 35 USC 371 of International Application No. PCT/GB03/02509, filed June 9, 2003, and published in the English language as WO 03/104481.

Reference to Sequence Listing

10   The present application incorporates by reference the sequence listing submitted as an ASCII text filed via EFS-Web on January 18, 2010. The Sequence Listing is provided as a file entitled 8400121_1.txt, created on January 18, 2010, which is 4 Kb in size.

Field of the Invention

15   The present invention relates to protein kinase catalytic domain structures and mutants and screening assays making use thereof.

Background of the Invention

20   The 3-Phosphoinositide Dependent Protein Kinase-1 (PDK1) is a key protein kinase, regulating activity of a group of related protein kinases through phosphorylation. These kinases include isoforms of Protein Kinase B (also known as Akt) [Brazil and Hemmings, 2001,Scheid and Woodgett, 2001], p70 ribosomal S6 kinase (S6K) [Alessi et al.,.1997,Volarevic and 25   Thomas, 2001], p90 ribosomal S6 Kinase (RSK) [Frodin and Gammeltoft, 1999] and the serum and glucocorticoid induced-protein kinase (SGK) [Lang and Cohen, 2001]. These enzymes are stimulated by hormones and growth factors and phosphorylate regulatory proteins mediating the various physiological effects of these agonists.

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PDK1 possesses an N-terminal kinase catalytic domain and a C-terminal pleckstrin homology (PH) domain [Alessi et al., 1997,Stephens et al., 1998]. PDK1 activates its substrates by phosphorylating these kinases at their activation loop (reviewed in [Alessi, 2001,Toker and Newton, 2000]). The phosphorylation of PKB by PDK1 is dependent upon prior activation of the phosphoinositide 3-kinase (PI-3-kinase) and the production of the second messenger, phosphatidylinositol 3,4,5-trisphosphate (PtdIns(3,4,5)P_3) which binds to the PH domains of PDK1 and PKB. This does not activate either PKB or PDK1 but instead recruits and co-localises these enzymes at the plasma membrane.

Unlike PKB, the other PDK1 substrates described thus far do not interact with PtdIns(3,4,5)P_3 nor is the rate at which they are phosphorylated by PDK1 further enhanced by the binding of PDK1 to PtdIns(3,4,5)P_3. Instead the ability of PDK1 to phosphorylate S6K, SGK and RSK is promoted by phosphorylation of these enzymes at a residue located C-terminal to the kinase catalytic domain in a region known as the hydrophobic motif [Alessi et al., 1997,Kobayashi and Cohen, 1999, Pullen et al., 1998]. The kinases that phosphorylate the hydrophobic motif of S6K and SGK are unknown but as the phosphorylation of this residue *in vivo* is dependent on PI-3-kinase activation, the hydrophobic motif kinases and/or the hydrophobic motif phosphatases may be regulated by PtdIns(3,4,5)P_3. In the case of RSK isoforms, phosphorylation by the ERK1/ERK2 MAP kinases induce phosphorylation of the hydrophobic motif (reviewed in Frodin and Gammeltoft, 1999).

PDK1 belongs to the same subfamily of protein kinases as its substrates, termed the AGC protein kinases as they are related to the **c**AMP dependent protein kinase (PKA)/**c**GMP dependent protein kinase/Protein kinase **C** (PKC). PKA is the only AGC kinase whose crystal structure has been

solved. Like all protein kinases, its catalytic core possesses an N-terminal lobe consisting mainly of β-sheet and a predominantly α-helical C-terminal lobe [Taylor et al., 1992, Husen and Kuriyan, 2002]. The ATP binding site is located in between the 2 lobes [Johnson et al., 2001, Knighton et al., 1991]. At the very C-terminus, PKA possesses an extended loop that terminates in the sequence FXXF (SEQ ID NO:1) which resembles the first part of the hydrophobic motif phosphorylation site of S6K and SGK (FXXFS/TY, SEQ ID NO:2) in which the Ser/Thr is the phosphorylated residue [Biondi et al., 2000]. In the structure of PKA, the FXXF motif (SEQ ID NO:1) is buried in a hydrophobic pocket in the small lobe of the PKA catalytic domain [Knighton et al., 1991] and mutation of either of the Phe residues drastically reduces PKA activity towards a peptide substrate [Etchebehere et al., 1997]. Unlike other AGC kinases, PDK1 does not possess a hydrophobic motif C-terminal to its catalytic domain. However, there is evidence that PDK1 possesses a hydrophobic pocket in the small lobe of its catalytic domain similar to that in PKA. We have biochemically demonstrated that the interaction of PDK1 with four of its substrates (S6K1, SGK1, PKζ and PKC related kinase-2 (PRK2)) is reduced or abolished by mutation of residues predicted to form part of this pocket [Balendran et al., 2000, Biondi et al., 2000]. Furthermore, mutation of a central residue in the predicted pocket, Leu 155, prevented PDK1 from phosphorylating and activating S6K1 and SGK1 without affecting its ability to phosphorylate either PKB or a short peptide substrate that encompasses the activation loop of PKB (T308tide) [Biondi et al., 2000]. The hydrophobic pocket on the kinase domain of PDK1 has been termed the "PIF-pocket" after the name of the first AGC-kinase hydrophobic motif-containing peptide (PDK1 Interacting Fragment) that was found to bind PDK1 [Balendran et al., 1999a]. It has been suggested that the PIF-pocket in PDK1 functions as a docking site, enabling PDK1 to interact with some of its physiological substrates. Furthermore, there is evidence that phosphorylation of the

hydrophobic motif of S6K1, SGK and RSK2 [Balendran et al., 1999b,Biondi et al., 2001, Frodin et al., 2000] promotes the interaction of these enzymes with PDK1. These findings suggest that the PIF-pocket on PDK1 could contain a phosphate binding site promoting the binding of PDK1 to a subset of substrates (S6K, SGK and RSK) once these enzymes have been phosphorylated at their hydrophobic motif. This would result in a physiological phosphate dependent interaction. In addition there is evidence that occupancy of the PIF-pocket activates PDK1 as peptides that encompass the hydrophobic motif of PRK2 [Biondi et al., 2000] and RSK [Frodin et al., 2000] induce a 4-6-fold activation of PDK1.

Previous predicted structures PDK1 catalytic domain were obtained using homology modelling methods based upon structural information available from the catalytic domain of PKA (Biondi et al., 2000). These predictions of the PDK1 catalytic domain structure were thus biased towards the catalytic domain from which the structural information was obtained.

Summary of the Invention

We have determined a crystal structure for the kinase domain of the AGC family protein kinase PDK. The structure defines the PIF-pocket and reveals an adjacent possible phosphate binding site. Furthermore, we have performed structure-based mutagenesis and biochemical analysis which support the existence of such a phosphate-binding site. This may mediate the phosphate dependent docking interaction with substrates such as (for PDK1) S6K and SGK. We have used a novel algorithm to define the conformational state of the crystallised PDK1 relative to all the reported structures of PKA, which shows that while PDK1 has all the signs of being in an active form in the crystal, its overall conformation is in-between and 'open' and 'closed' state. We have also determined crystal structures for the kinase domain of PDK1 in complex with modulators of PDK1 activity.

On the basis of this work we provide drug screening methods and mutated protein kinase molecules (which are useful in, for example, drug screening methods).

5   A first aspect of the invention provides a method for selecting or designing a compound for modulating the activity of phosphoinositide dependent protein kinase 1 (PDK1), the method comprising the step of using molecular modelling means to select or design a compound that is predicted to interact with the protein kinase catalytic domain of PDK1, wherein a three-

10   dimensional structure of at least a part of the protein kinase catalytic domain of PDK1 is compared with a three-dimensional structure of a compound, and a compound that is predicted to interact with the said protein kinase catalytic domain is selected, wherein the three-dimensional structure of at least a part of the protein kinase catalytic domain of PDK1 is a three-

15   dimensional structure (or part thereof) determined for a polypeptide consisting of residues equivalent to residues 51 to 359 of full length human PDK1, or a fragment or fusion thereof.

Brief Description of the Drawings

20   Figure 1 provides an overview of the PDK1 structure.

Figures 2A and 2B show the PIF-pocket.

Figure 3 shows a structure-based sequence alignment

Figures 4A-C show PDK1 binding & activation studies.

Figures 5A and 5B show interactions of regulatory phosphates with the αC

25   helix.

Figures 6A and 6B show essential dynamics.

Figure 7 shows alignment of AGC protein kinase family members.

Figure 8 shows staurosporine and UCN-01 electron density.

Figure 9 shows details of the inhibitor binding sites.

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Detailed Description of the Invention

The term PDK1 as used herein includes a polypeptide (a PDK1 polypeptide) comprising the amino acid sequence identified as PDK1 in Alessi D.R *et al* (1997) *Curr. Biol.* **7**: 261-269, Alessi D.R *et al* (1997)

5   *Curr. Biol.* **7**: 776-789, Stokoe D *et al* (1997) *Science* **277**: 567-570 or Stephens L *et al* (1998) *Science* **279**: 710-714, or a variant, fragment, fusion or derivative thereof, or a fusion of a said variant or fragment or derivative, for example as described in WO98/41638, incorporated herein by reference. It is preferred that the said PDK1 polypeptide is a protein kinase. It is

10   preferred that the said PDK1 polypeptide is a protein kinase that is capable of phosphorylating a threonine residue that lies in a Thr-Phe-Cys-Gly-Thr-Xaa-Glu-Leu consensus motif (where the underlined Thr corresponds to the threonine that is phosphorylated by PDK1 and Xaa is a variable residue, SEQ ID NO:9), and preferably that is capable of phosphorylating PKB, for

15   example PKBα, at residue Thr308. The rate at which the said PDK1 polypeptide is capable of phosphorylating a threonine residue as described above may be increased in the presence of PtdIns(3,4,5)P_3 or PtdIns(3,4)P_2 but it will be appreciated that this is not essential. The said polypeptide may be capable of phosphorylating the equivalent residues to Thr308 of

20   PKBα on PKC isoforms (LeGood *et al* (1998) *Science* **281**: 2042-2045; *et al* (1998) *Curr. Biol.* **8**: 1069-1077; Dutil *et al* (1998) *Curr. Biol.* **8**:1366-1375), p70 S6 kinase (Alessi *et al* (1998) *Curr. Biol.* **8**: 69-81; Pullen *et al* (1998) *Science* **279**, 707-710), SGK (sequence given in Webster *et al* (1993) *Mol. Cell. Biol.* **13,** 1031-2040; equivalent residues identified in US

25   application no 112217 filed on 14 December 1998; GB 9919676.8, filed on 19 August 1999, and Kobayashi & Cohen (1999)) and PKA (Cheng *et al* (1998) *Proc. Natl. Acad. Sci. USA* **95**: 9849-9854). It may further be preferred that the substrate specificity and/or other characteristics of the said PDK1 polypeptide *in vitro* may be substantially as reported in Alessi D.R *et*

30   *al* (1997) *Curr. Biol.* **7**: 261-269, Alessi D.R *et al* (1997) *Curr. Biol.* **7**: 776-

789, Stokoe D *et al* (1997) *Science* **277**: 567-570 or Stephens L *et al* (1998) *Science* **279**: 710-714.

We have found that a fragment of PDK1 consisting essentially of residues equivalent to residues 51 to 359 of full length human PDK1 is particularly beneficial for determining a structure for the catalytic domain of PDK1. This fragment has, for example, protein kinase activity and surprisingly beneficial solubility and stability characteristics which make it particularly suitable for structural studies, for example formation of crystals which may be analysed by X-ray crystallography methods. Other fragments of PDK1 were surprisingly found to be unsuitable for crystallisation, as discussed in Example 5.

It is particularly preferred that the structure is one determined for the fragment consisting of residues 51 to 359 of full length human PDK1. The fragment may comprise an N-terminal or C-terminal fusion polypeptide (ie amino acid sequence not derived from PDK1), though this is preferably of less than or equal to about 10, 5, 4, 3, 2 or 1 amino acids. For example, it is particularly preferred that the structure is one determined for a polypeptide consisting residues 51 to 359 of full length human PDK1 and the amino acid sequence Gly-Pro (or less preferably other sequence forming part of a protease cleavage site) preceding the methionine corresponding to Met51 of human PDK1. A further preferred structure is one determined for the fragment consisting essentially of residues 71 to 359 of full length human PDK1 (or residues equivalent thereto), which also has protein kinase activity.

It is particularly preferred that the structure is one determinable by a method as described in Example 1, for example a structure obtainable by X-ray analysis from a crystal obtainable using a mother liquor solution comprising

ammonium sulphate, preferably between 1.8 and 2.2M. It is particularly preferred that the mother liquor solution is of pH 7 to 9, preferably 7 to 8.5, most preferably pH8.5, and comprises ammonium sulphate and preferably ATP. Crystals may form in the absence of ATP but better crystals may be obtained in the presence of ATP. Preferably the crystal is obtainable using a mother liquor solution containing 0.1M Tris/HCl pH 8.5, 2.0 M ammonium sulphate, 16.6 mM ATP. Further preferred details of the crystallisation and X-ray analysis are described in Example 1, for example as partially summarised in Table 1 (shown in Example 1).

It is particularly preferred that the structure is that represented by the structure co-ordinates shown in Examples 2, 3 or 4, or a structure based or modelled on such a structure or co-ordinates. The co-ordinates shown in Example 2 are for the PDK1fragment (SEQ ID NO:102) with all alternate side chains. The co-ordinates shown in Example 3 are for the PDK1 fragment (SEQ ID NO:102) without alternate side chains. The co-ordinates shown in Example 4 are for the dimer of the PDK1 fragment (SEQ ID NO:102), without alternate side chains; chain A is the molecule for which co-ordinates are given in Examples 2 and 3, and chain B is the symmetry-related molecule.

The structure may be one determined following crystallisation in the presence of a known or potential interactor with PDK1 or modulator of PDK1 activity (as discussed further below), for example a known or potential inhibitor of PDK1 activity. For example, the structure may be one determined following crystallisation in the presence of a known protein kinase inhibitor, for example an inhibitor that binds at the ATP binding site, for example an ATP-competitive inhibitor, for example staurosporine or a staurosporine derivative, for example UCN-01. Examples of such crystallisation techniques and analysis are given in Example 6, and

examples of co-ordinates are given in Examples 7 and 8. Example 7 represents the co-ordinates of PDK1 fragment (SEQ ID NO:102) co-crystallised with Staurosporine, whereas in Example 8, the co-ordinates of PDK1 fragment (SEQ ID NO:102) co-crystallised with UCN-01.

It will be appreciated that some variation in crystallisation conditions (for example different mother liquors) may be required for co-crystallisation with different molecules. Techniques for investigating suitable crystallisation conditions in each case will be well known to those skilled in the art.

A further aspect of the invention provides a crystalline form of a polypeptide as defined in any of the preceding aspects of the invention, for example a polypeptide consisting of residues equivalent to residues 51 to 359 of full length human PDK1, or a fragment or fusion thereof; a polypeptide consisting of residues 51 to 359 of full length human PDK1 or a fusion thereof; a polypeptide consisting of residues 51 to 359 of full length human PDK1 and the amino acid sequence Gly-Pro preceding the methionine corresponding to Met51 of human PDK1; a polypeptide consisting of residues 71 to 359 of full length human PDK1 or a fusion thereof.

The crystalline form may further comprise co-crystallised molecule, for example a known or potential interactor with PDK1 or modulator of PDK1 activity, or a test compound whose properties *vis a vis* PDK1 may not be known. For example, the co-crystallised molecule, for example test compound, may be a molecule that is known to modulate protein kinase activity, or may already be known to modulate PDK1 protein kinase activity. For example, the co-crystallised molecule may be staurosporine,

the staurosporine derivative UCN-01 (7-hydroxyl staurosporine) or other staurosporine derivative.

Such co-crystallisation and structures determined from co-crystallised molecules may be useful in molecular modelling and in determining features of the polypeptide and compound that are important for interaction. This may be useful in designing or selecting further test compounds, for example as discussed in Example 6.

In one embodiment it is preferred that the modelled molecule is predicted to bind to a region of the structure termed the "PIF binding pocket", the "phosphate binding pocket" and/or the α C helix (residues equivalent to 123-136 of full length human PDK1), particularly the residue equivalent to Arg 131 of full length human PDK1, or interacting regions. As discussed in Example 1, the PIF binding pocket is considered to be formed by residues including Lys115, Ile118, Ile119 on the αB helix, Val124, Val127 on the αC helix and Leu 155 on β-sheet 5. The phosphate binding pocket is considered to be formed by residues including Lys76, Arg 131, Thr 148 and Gln150. Residues of the αC helix that are considered to interact either with phosphate bound in the phosphate binding site or intermolecularly with phosphorylated Ser241 of PDK1 include Arg131 (phosphate binding site) and Arg 129 and His126 (phosphorylated Ser241). Glu 130 is involved in binding the α-phosphate of the bound ATP, and Val124 and Val127 form part of the PIF binding pocket, as discussed in Example 1.

It is preferred that the compound is for modulating the protein kinase activity of PDK1. The protein kinase activity of PDK1 that is modulated may be phosphorylation of the underlined residue in a polypeptide with the amino acid sequence Thr/Ser-Phe-Cys-Gly-Thr-Xaa-Glu-Leu ("PDK1"

activity, SEQ ID NO:9). Alternatively or in addition, the modulated activity may be phosphorylation of the underlined residue in a polypeptide with the amino acid sequence Phe-Xaa-Xaa-Phe-Ser/Thr-Phe/Tyr ("PDK2" activity, SEQ ID NO:11). The substrate polypeptide may be, for example, a PKB, SGK, p70 S6 kinase, PKC or (in relation only to phosphorylation of the underlined residue in a polypeptide with the amino acid sequence Thr/Ser-Phe-Cys-Gly-Thr-Xaa-Glu-Leu (SEQ ID NO:9) PKA polypeptide. The modulated protein kinase activity may be towards PKB or other PH-domain-comprising/phosphoinositide-binding substrate of PDK1; or SGK, S6K or other substrate of PDK1 whose phosphorylation by PDK1 is promoted by phosphorylation of the substrate on the Ser/Thr of the "hydrophobic motif" FXXFS/TY (SEQ ID NO:2); or an artificial substrate such as T308tide (which comprises the sequence of PKB which is phosphorylated by PDK1) or PDKtide (which comprises the sequence of PKB which is phosphorylated by PDK1 (eg T308tide) fused to a sequence mimicking a phosphorylated hydrophobic motif ie FXXFZY (SEQ ID NO: 2), in which Z is a negatively charged (for example acidic) residue (eg PIFtide)). Such substrates for PDK1 are discussed, for example, in WO 01/44497. Other activities of PDK1 that may be modulated include interactions with other polypeptides or phosphoinositides and/or intramolecular interactions.

It is preferred that the three-dimensional structure of at least a part of the protein kinase catalytic domain of the PDK1 is a three-dimensional structure of at least a part of the PIF binding pocket, the phosphate binding pocket and/or the α C helix, or interacting regions of PDK1, and a compound that is predicted to interact with the said PIF binding pocket, the phosphate binding pocket and/or the α C helix, or interacting regions of PDK1 is selected. Alternatively, the compound may bind to a portion of said PDK1 polypeptide that is not the PIF binding pocket, the phosphate

binding pocket and/or the α C helix, or interacting regions of PDK1, for example so as to interfere with the binding of the ATP or substrate polypeptide or their access to the catalytic site. In a still further example, the compound may bind to a portion of PDK1 so as to decrease said polypeptide's activity by an allosteric effect. This allosteric effect may be an allosteric effect that is involved in the natural regulation of PDK1's activity.

It is further preferred that the three-dimensional structure of at least a part of the protein kinase catalytic domain of PDK1 is a three-dimensional structure of the part of the protein kinase catalytic domain of PDK1 that is defined by residues Lys115, Ile118, Ile119 (on the αB helix), Val124, Val127 (on the αC helix) and Leu 155 (on β-sheet 50 and/or residues Lys76, Arg 131, Thr 148 and Gln150 and/or residues Arg131, Arg 129, His126, Glu 130 of full-length human PDK1 and a compound that is predicted to interact with the said part of the protein kinase catalytic domain is selected.

For example, it is preferred if the portions of the structure of PDK1 shown in Figures 1 and 2 as forming the PIF binding pocket and/or phosphate binding pocket and/or αC helix interactions (for example with phosphoserine241) are compared with the structure of the candidate compound.

A further aspect of the invention provides a method for selecting or designing a compound for modulating the activity of a hydrophobic pocket (PIF binding pocket)-containing protein kinase having a hydrophobic pocket in the position equivalent to the hydrophobic pocket of human PDK1 that is defined by residues including Lys115, Ile118, Ile119, Val124,

Val127 and/or Leu155 of full-length human PDK1 and further having a phosphate binding pocket in the position equivalent to the phosphate binding pocket of human PDK1 that is defined by residues including Lys76, Arg131, Thr148 and/or Gln150, the method comprising the step of using molecular modelling means to select or design a compound that is predicted to interact with the said hydrophobic pocket-containing protein kinase, wherein a three-dimensional structure of a compound is compared with a three-dimensional structure of the said phosphate binding pocket and optionally also the hydrophobic pocket and/or αC helix or region interacting therewith, and a compound that is predicted to interact with the said phosphate binding pocket and optionally also the hydrophobic pocket and/or αC helix or region interacting therewith, is selected.

The three-dimensional structure of a compound may be compared with the three-dimensional structure of the hydrophobic and/or phosphate binding pocket and/or αC helix or region interacting therewith, as appropriate. A compound that can interact with the hydrophobic pocket and/or phosphate binding pocket, in particular residues noted above as defining such regions, in a similar manner (for example similar separation and/or type of interaction ie hydrophobic or ionic, and/or similar cumulative energy of interaction) to an interacting polypeptide such as S6K-pHM may be selected. Methods of assessing the interaction are well known to those skilled in the art and are discussed further below.

The three-dimensional structures that are compared may be, as appropriate, predicted or modelled three-dimensional structures (for example on the basis of a PDK1 structure as referred to above, for example as represented by the co-ordinates given in Examples 2, 3 or 4 or 6 or 7) or may be three-dimensional structures that have been determined, for example by

techniques such as X-ray crystallography, as well known to those skilled in the art. The three-dimensional structures may be displayed by a computer in a two-dimensional form, for example on a computer screen. The comparison may be performed using such two-dimensional displays.

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The following relate to molecular modelling techniques: Blundell *et al* (1996) Stucture-based drug design *Nature* **384**, 23-26; Bohm (1996) Computational tools for structure-based ligand design *Prog Biophys Mol Biol* **66(3)**, 197-210; Cohen *et al* (1990) *J Med Chem* **33**, 883-894; Navia *et al* (1992) *Curr Opin Struct Biol* **2**, 202-210 .

The following computer programs, for example, may be useful in carrying out the method of this aspect of the invention: GRID (Goodford (1985) *J Med Chem* **28**, 849-857; available from Oxford University, Oxford, UK); MCSS (Miranker *et al* (1991) *Proteins: Structure, Function and Genetics* **11**, 29-34; available from Molecular Simulations, Burlington, MA); AUTODOCK (Goodsell *et al* (1990) *Proteins: Structure, Function and Genetics* **8**, 195-202; available from Scripps Research Institute, La Jolla, CA); DOCK (Kuntz *et al* (1982) *J Mol Biol* **161**, 269-288; available from the University of California, San Francisco, CA); LUDI (Bohm (1992) *J Comp Aid Molec Design* **6**, 61-78; available from Biosym Technologies, San Diego, CA); LEGEND (Nishibata *et al* (1991) *Tetrahedron* **47**, 8985; available from Molecular Simulations, Burlington, MA); LeapFrog (available from Tripos Associates, St Louis, MO); Gaussian 92, for example revision C (MJ Frisch, Gaussian, Inc., Pittsburgh, PA ©1992); AMBER, version 4.0 (PA Kollman, University of California at San Francisco, ©1994); QUANTA/CHARMM (Molecular Simulations, Inc., Burlington, MA ©1994); and Insight II/Discover (Biosym Technologies Inc., San Diego, CA ©1994). Programs may be run on, for example, a Silicon

Graphics™ workstation, Indigo²™ or IBM RISC/6000™ workstation model 550.

Several *in silico* methods could be employed, for example, via a substructure search for new ligands using programmes such as CHEM DRAW or CHEM FINDER. The basic structure of the natural ligand (for example a phosphorylated hydrophobic motif peptide such as S6K-pHM) capable of binding to PDK1 (or other protein kinase) is taken (or predicted) and various structural features of it (for example the hydrophobic and negatively charged entities) are submited to a programme which will searches a set of chemical company catalogues for chemicals containing this substructure.

These compounds are then screened by eye for groups that could not interact with the PIF/phosphate binding pockets (or the αC residues/interacting region) because, for example, they are too large or have steric or charge hindrance, and those are discarded. The remaining chemicals are submitted to a PRODRG server and topologies/co-ordinates for these chemicals are created. These chemicals are modelled into the structure, from which chemicals that are possibly able to bind to the PIF/phosphate binding site domain/αC helix/interacting region are selected. Further details of the PRODRG programme are available _in the art, for example, from Daan van Aalten Laboratory.

These compounds may then be ordered or synthesised and assessed, for one or more of ability to bind to and/or modulate PDK1 (or other protein kinase) activity. The compounds may be crystallised with the PDK1 or other protein kinase protein and the structure of any complex determined, as illustrated in Examples 6 to 8.

An alternative approach is to use PRODRG: a tool for generating GROMOS/MOL2/WHATIF topologies and hydrogen atom positions from small molecule PDB files. We take the natural ligand and computationally vary all possible groups at each site on the ligand, with a variety of new groups while the protein co-ordinates and the ligand back-bone co-ordinates remain fixed the results can then be screened for hindrance and repulsion, and the molecules are obtained either through catalogues or made.

As noted above, the selected or designed compound may be synthesised (if not already synthesised) or purified and tested for its effect on the relevant hydrophobic/phosphate pocket-containing protein kinase, for example its effect on the protein kinase activity. The compound may be tested in a screening method of the invention or other screening method. The compound may be formulated for pharmaceutical use, for example for use in *in vivo* trials in animals or humans, or for use in agriculture, for example as an antifungal agent.

It may be useful to analyse a protein kinase structure (for example a structure determined or predicted for a complex of the protein kinase with a binding partner) in order to determine the activation state of the structure. This may be useful in further modelling binding of the binding partner to the protein kinase in other activation states, and in predicting how the binding partner may affect the activation state of the protein kinase or compete with other potential binding partners. It may also be useful in designing and assessing derivatives of the binding partner.

Thus, a further aspect of the invention provides a method for assessing the activation state of a structure for a protein kinase, wherein the structure is analysed using principle component analysis of the structure co-ordinates. The method may further comprise the step of classifying the activation state

of the structure as "open", "closed" or "intermediate". Details of the analysis, which involves the generation of eigenvectors and associated eigenvalues are given in Example 1. The analysis makes use of techniques described in Amadei *et al* (1993) Essential dynamics of proteins. *Proteins*

5 **17**, 412-425.

The hydrophobic/phosphate pocket-containing protein kinase may be PDK1. Alternatively, it may be an isoform of Serum and Glucocorticoid stimulated protein kinase (SGK), Protein Kinase B (PKB), p70 S6 kinase,

10 p90 RSK, PKC isoforms (for example PKCα, PKCδ, PKCζ), PRK1, PRK2, MSK1 or MSK2. Hydrophobic/phosphate pocket-containing protein kinases and their EMBL database accession numbers are listed in Table I. Sequences considered to form the phosphate binding pocket from representative hydrophobic/phosphate pocket-containing protein kinases are

15 shown in Figure 5. All AGC family protein kinases other than PKA may be hydrophobic/phosphate pocket-containing protein kinases, as defined above. In addition to the protein kinases shown in Figure 7, rhodopsin and G-protein coupled receptor protein kinases, for example, may possibly also have a hydrophobic/phosphate pocket as defined above.

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The terms SGK, PKB, p70 S6 kinase, p90 RSK, PKCα, PKCδ, PKCζ or PRK2, for example, as used herein include a polypeptide (a SGK, PKB, PKA, p70S6 kinase, p90 RSK, PKCα, PKCδ, PKCζ or PRK2 polypeptide) comprising the amino acid sequence identified as a SGK, PKB, p70 S6

25 kinase, p90 RSK, PKCα, PKCδ, PKCζ or PRK2, respectively, in the relevant EMBL database records indicated in Table 2.

Table 2

Activation or T-	AGC Hydrophobic	Accession

	Loop	**Motif**	**number**
consensus:	TFCGTxxYxAPD	FxxFSY	
	(SEQ ID NO:41)	(SEQ ID NO:42)	
	L E	YTF	
PKBα	TFCGTPEYLAPE	FPQFSY	(Y15056)
	(SEQ ID NO:45)	(SEQ ID NO:46)	
PKBβ	TFCGTPEYLAPE	FPQFSY	(P31751)
	(SEQ ID NO:47)	(SEQ ID NO:48)	
PKBγ	TFCGTPEYLAPE	FPQFSY	(AF135794)
	(SEQ ID NO:49)	(SEQ ID NO:50)	
SGK1	TFCGTPEYLAPE	FLGFSY	(AAD41091)
	(SEQ ID NO:51)	(SEQ ID NO:52)	
SGK2	TFCGTPEYLAPE	FLGFSY	(AF169034)
	(SEQ ID NO:53)	(SEQ ID NO:54)	
SGK3	TFCGTPEYLAPE	FLGFSY	(AF169035)
	(SEQ ID NO:55)	(SEQ ID NO:56)	
PKCα	TFCGTPDYIAPE	FEGFSY	(4506067)
	(SEQ ID NO:57)	(SEQ ID NO:58)	
PKCβI	TFCGTPDYIAPE	FAGFSY	(4506069)
	(SEQ ID NO:59)	(SEQ ID NO:60)	
PKCβII	TFCGTPDYIAPE	FEGFSF	(P05127)
	(SEQ ID NO:61)	(SEQ ID NO:62)	
PKCγ	TFCGTPDYIAPE	FGGFTY	(P05129)
	(SEQ ID NO:63)	(SEQ ID NO:64)	
PKCδ	TFCGTPDYIAPE	FAGFSF	(5453970)
	(SEQ ID NO:65)	(SEQ ID NO:66)	
PCKζ	TFCGTPNYIAPE	FEGFEY	(4506079)
	(SEQ ID NO:67)	(SEQ ID NO:68)	
PKCι	TFCGTPNYIAPE	FEGFEY	(4506071)
	(SEQ ID NO:69)	(SEQ ID NO:68)	

PRK1	<u>T</u>FCGTPEFLAPE	FLDFDF	(AAC50209)
	(SEQ ID NO:71)	(SEQ ID NO:72)	
PRK2	<u>T</u>FCGTPEFLAPE	FRDFDY	(AAC50208)
	(SEQ ID NO:73)	(SEQ ID NO:74)	
p70-S6Kα	<u>T</u>FCGTIEYMAPE	FLGF<u>T</u>Y	(AAA36410)
	(SEQ ID NO:75)	(SEQ ID NO:76)	
p70-S6Kβ	<u>T</u>FCGTIEYMAPE	FLGF<u>T</u>Y	(4506739)
	(SEQ ID NO:77)	(SEQ ID NO:78)	
p90-RSK1	<u>S</u>FCGTVEYMAPE	FRGF<u>S</u>F	(I38556)
	(SEQ ID NO:79)	(SEQ ID NO:80)	
p90-RSK2	<u>S</u>FCGTVEYMAPE	FRDF<u>S</u>F	(P51812)
	(SEQ ID NO:81)	(SEQ ID NO:82)	
p90-RSK3	<u>S</u>FCGTIEYMAPE	FRGF<u>S</u>F	(CAA59427)
	(SEQ ID NO:83)	(SEQ ID NO:84)	
MSK1	<u>S</u>FCGTIEYMAPD	FQGY<u>S</u>F	(AAC31171)
	(SEQ ID NO:85)	(SEQ ID NO:86)	
MSK2	<u>S</u>FCGTIEYMAPE	FQGY<u>S</u>F	(AAC67395)
	(SEQ ID NO:87)	(SEQ ID NO:88)	
PDK1	<u>S</u>FVGTAQYVSPE	(1)	(AF017995)
	(SEQ ID NO:89)		

Table 2. Alignment of the amino acid sequences surrounding the T-loop and the hydrophobic motif of AGC kinases. All the sequences and accession numbers are from human proteins. The underlined residues correspond to those that become phosphorylated. Footnotes: (1) PDK1 does not possess a hydrophobic motif.

It is preferred that the PDK1 (or, for example, SGK, PKB, PKA or p70 S6 kinase) is a polypeptide which consists of the amino acid sequence of the

protein kinase PDK1 (or, for example, SGK, PKB, PKA or p70 S6 kinase as the case may be) sequence referred to above or naturally occurring allelic variants thereof. It is preferred that the naturally occuring allelic variants are mammalian, preferably human, but may alternatively be homologues from parasitic or pathogenic or potentially pathogenic organisms. Examples of such organisms and homologues, and of uses of modulators of such homologues are given in US patent application No 60/112,114, filed on 14 December 1998, and applications claiming priority therefrom, or in Casamayor *et al* (1999) *Curr Biol* **9**, 186-197.

The PDK1 may also be a polypeptide with the amino acid sequence of residues 51 to 359 or 404 (or 71 to 360) of full-length human PDK1; this may comprise the protein kinase domain of PDK1, as described in Example 2. The PDK1 (or SGK, PKB, PKA or p70 S6 kinase) may also be Myc epitope-tagged or His-tagged, as described in Example 1. The p70 S6 kinase, for example, may have a His tag at its N-terminus and/or may lack the carboxy terminal 104 residues (p70 S6K-T2). The PDK1 or SGK may be a *Saccharomyces cerevisiae* homologue, for example Pkh1 or Pkh2 (PDK1 homologues) or Ypk1 or Yrk2 (SGK homologues), as described in Casamayor *et al* (1999) *Curr Biol* **9**, 186-197.

It is particularly preferred, although not essential, that the variant or fragment or derivative or fusion of the PDK1, or the fusion of the variant or fragment or derivative has at least 30% of the enzyme activity of full-length human PDK1 with respect to the phosphorylation of full-length human PKBα on residue Thr308 or SGK1 on residue Thr 256 in either the presence or absence of PtdIns(3,4,5)P$_3$ or PtdIns(3,4)P$_2$. It is more preferred if the variant or fragment or derivative or fusion of the said protein kinase, or the fusion of the variant or fragment or derivative has at least 50%, preferably at least 70% and more preferably at least 90% of the enzyme activity of

PDK1 with respect to the phosphorylation of PKBα or SGK1. However, it will be appreciated that variants or fusions or derivatives or fragments which are devoid of enzymatic activity may nevertheless be useful, for example by interacting with another polypeptide. Thus, variants or fusions or derivatives or fragments which are devoid of enzymatic activity may be useful in a binding assay, which may be used, for example, in a method of the invention in which modulation of an interaction of a mutated PDK1 of the invention and optionally also PDK1 with a interacting polypeptide or compound, for example an interacting polypeptide comprising the amino acid sequence motif Phe/Tyr-Xaa-Xaa-Phe/Tyr (SEQ ID NO:92), for example Phe/Tyr-Xaa-Xaa-Phe/Tyr-Zaa-Phe/Tyr (SEQ ID NO:93), for example Phe/Tyr-Xaa-Xaa-Phe/Tyr-Asp/Glu-Phe/Tyr (SEQ ID NO:94) or Phe/Tyr-Xaa-Xaa-Phe/Tyr-PhosphoSer/PhosphoThr-Phe/Tyr (SEQ ID NO: 95) is measured.

It is preferred that the variant or fragment or derivative or fusion of the said hydrophobic/phosphate binding pocket-containing protein kinase, or the fusion of the variant or fragment or derivative comprises a hydrophobic pocket and a phosphate binding pocket in the position equivalent to the hydrophobic and phosphate binding pocket of human PDK1, as discussed further below.

Equivalent preferences apply to a variant or fragment or derivative or fusion of the SGK, PKB, p70 S6 kinase, p90 RSK, PKCα, PKCδ, PKCζ or PRK2 (for example), or the fusion of the variant or fragment or derivative, with the substitution in relation to SGK, PKB and p70S6 kinase of the peptide substrate Crosstide (GRPRTSSFAEG, SEQ ID NO:96), or for PKB and SGK of the peptide substrate RPRAATF; the subsitution in relation to PKA of the peptide substrate Kemptide (LRRASLG, SEQ ID NO:97); the substitution in relation to PKC isoforms and PRK1/2 of histone H1; and the

substitution in relation to MSK1/2 or p90-RSK1/2/3 of CREBtide (EILSRRPSYRK, SEQ ID NO:98).

By "variants" of a polypeptide we include insertions, deletions and substitutions, either conservative or non-conservative. In particular we include variants of the polypeptide where such changes do not substantially alter the activity of the said polypeptide, for example the protein kinase activity of PDK1, as described above.

By "conservative substitutions" is intended combinations such as Gly, Ala; Val, Ile, Leu; Asp, Glu; Asn, Gln; Ser, Thr; Lys, Arg; and Phe, Tyr.

The three-letter amino acid code of the IUPAC-IUB Biochemical Nomenclature Commission is used herein, with the exception of the symbol Zaa (negatively charged amino acid). In particular, Xaa represents any amino acid. It is preferred that Xaa and Zaa represent a naturally occuring amino acid. It is preferred that at least the amino acids corresponding to the consensus sequences defined above are L-amino acids.

It is particularly preferred if the PDK1 (or SGK, PKB, PKA or p70 S6 kinase or other hydrophobic/phosphate binding pocket-containing kinase as defined above) variant has an amino acid sequence which has at least 65% identity with the amino acid sequence of PDK1 referred to above (or the sequence for SGK (including SGK1, 2 and 3), PKB, PKA or p70 S6 kinase, for example, as appropriate, referred to above), more preferably at least 70%, 71%, 72%, 73% or 74%, still more preferably at least 75%, yet still more preferably at least 80%, in further preference at least 85%, in still further preference at least 90% and most preferably at least 95% or 97% identity with the amino acid sequence defined above.

It is still further preferred if the PDK1 (or SGK, PKB, PKA or p70 S6 kinase or other hydrophobic/phosphate binding pocket-containing kinase, as defined above) variant has an amino acid sequence which has at least 65% identity with the amino acid sequence of the catalytic domain, particularly the residues forming the hydrophobic pocket, of PDK1 (or, for example, SGK, PKB, PKA or p70 S6 kinase) in the appropriate sequence referred to above, more preferably at least 70%, 71%, 72%, 73% or 74%, still more preferably at least 75%, yet still more preferably at least 80%, in further preference at least 83 or 85%, in still further preference at least 90% and most preferably at least 95% or 97% identity with the amino acid sequence defined above. It will be appreciated that the catalytic domain of a protein kinase-related polypeptide may be readily identified by a person skilled in the art, for example using sequence comparisons as described below.

The percent sequence identity between two polypeptides may be determined using suitable computer programs, for example the GAP program of the University of Wisconsin Genetic Computing Group and it will be appreciated that percent identity is calculated in relation to polypeptides whose sequence has been aligned optimally.

The alignment may alternatively be carried out using the Clustal W program (Thompson *et al* (1994) *Nucl Acid Res* **22**, 4673-4680). The parameters used may be as follows:

Fast pairwise alignment parameters: K-tuple(word) size; 1, window size; 5, gap penalty; 3, number of top diagonals; 5. Scoring method: x percent.

Multiple alignment parameters: gap open penalty; 10, gap extension penalty; 0.05.

Scoring matrix: BLOSUM.

It is preferred that the PDK1 (or, for example, SGK, PKB, PKA or p70 S6 kinase) is a polypeptide which consists of the amino acid sequence of the protein kinase PDK1 (or, for example, SGK, PKB, PKA or p70 S6 kinase as the case may be) sequence referred to above or naturally occurring allelic variants thereof. It is preferred that the naturally occuring allelic variants are mammalian, preferably human, but may alternatively be homologues from parasitic or pathogenic or potentially pathogenic organisms. Examples of such organisms and homologues, and of uses of modulators of such homologues are given in US patent application No 60/112,114, filed on 14 December 1998, and applications claiming priority therefrom, or in Casamayor *et al* (1999) *Curr Biol* **9**, 186-197.

It is preferred that the PDK1 (or, for example, SGK, PKB, PKA or p70 S6 kinase) is a polypeptide that is capable of interacting with a polypeptide comprising the amino acid sequence motif Phe/Tyr-Xaa-Xaa-Phe/Tyr (SEQ ID NO:92), preferably Phe-Xaa-Xaa-Phe/Tyr, more preferably Phe-Xaa-Xaa-Phe, still more preferably Phe/Tyr-Xaa-Xaa-Phe/Tyr-Xaa-Phe/Tyr (SEQ ID NO:93) or Phe/Tyr-Xaa-Xaa-Phe/Tyr-COOH, for example the polypeptide PIF or PIFtide, as defined below. Further preferences for the said polypeptide are as given above.

The protein kinase activity of PKB, SGK or p70 S6 kinase that is modulated may be phosphorylation of the underlined residue in a polypeptide with the amino acid sequence Arg-Xaa-Arg-Xaa-Xaa-<u>Ser/Thr (SEQ ID NO:100)</u>. The polypeptide may be Glycogen Synthase Kinase 3 (GSK3), 40 S ribosomal subunit S6, BAD, 6-phosphofructo-2-kinase, phosphodiesterase3b, human caspase 9, endothelial nitric oxide synthase or BRCA1.

A compound identified by a method of the invention may modulate the ability of the protein kinase to phosphorylate different substrates, for example different naturally occuring polypeptides, to different extents. The compound may inhibit the protein kinase activity in relation to one substrate but may increase the protein kinase activity in relation to a second substrate. For example, the protein kinase activity of PDK1 may be modulated to a different extent for PKB when compared with SGK, p70 S6 kinase and/or PKC.

It will be appreciated that the modulatory, for example inhibitory action of a compound found to bind (or inhibit binding of a polypeptide or compound) to the protein kinase may be confirmed by performing an assay of enzymic activity (for example PDK1 and/or PDK2 protein kinase activity) in the presence of the compound.

By "hydrophobic pocket-containing protein kinase having a hydrophobic pocket (PIF binding pocket) in the position equivalent to the hydrophobic pocket of human PDK1 that is defined by residues including Lys115, Ile118, Ile119, Val124, Val127 and/or Leu155 of full-length human PDK1 and further having a phosphate binding pocket in the position equivalent to the phosphate binding pocket of human PDK1 that is defined by residues including Lys76, Arg131, Thr148 and/or Gln150," is meant a polypeptide having an amino acid sequence identifiable as that of a protein kinase catalytic domain, and further having a predicted or determined three-dimensional structure that includes a hydrophobic pocket corresponding to the region indicated in Example 1 as the PIF binding pocket, and a pocket corresponding to the region indicated in Example 1 as the phosphate binding pocket. The hydrophobic pocket and phosphate binding pockets in PDK1 do not overlap with the ATP or phosphorylation site binding sites on PDK1.

It is preferred that the protein kinase has identical or conserved residues that are equivalent to Lys 115, Ile118, Ile119, Val124, Val127 and/or Leu 155 of human PDK1, more preferably at least Lys115 and Leu155 of human PDK1, most preferably an identical residue equivalent to Leu155. Thus, for example, the protein kinase may have a Lys residue at the position equivalent to Lys115 of PDK1 and/or a Leu residue at the position equivalent to Leu155 of PDK1. It is preferred that the protein kinase does not have an Ala at the position equivalent to Lys115 and/or a Ser, Asp or Glu at the position equivalent to Leu155 of PDK1.

It is further preferred that the protein kinase has identical or conserved residues that are equivalent to Lys76, Arg131, Thr148 and/or Gln 150 of human PDK1, more preferably at least Lys76 and Gln150 of human PDK1, most preferably an identical residue equivalent to Gln150. Figure 5B shows an alignment of examples of protein kinases considered to have a phosphate binding pocket at the position equivalent to the said phosphate binding pocket of PDK1. Sequence conservation/preferred residues at the positions identified are discussed further in Example 1.

An amino acid sequence may be identifiable as that of a protein kinase catalytic domain by reference to sequence identity or similarities of three dimensional structure with known protein kinase domains, as known to those skilled in the art.

Protein kinases show a conserved catalytic core, as reviewed in Johnson *et al* (1996) *Cell*, **85**, 149-158 and Taylor & Radzio-Andzelm (1994) *Structure* **2**, 345-355. This core folds into a small N-terminal lobe largely comprising anti-parallel β-sheet, and a large C-terminal lobe which is mostly α-helical.

A deep cleft at the interface between these lobes is the site of ATP binding, with the phosphate groups near the opening of the cleft.

Protein kinases also show conserved sequences within this catalytic core, and the residue equivalent to a given residue of, for example, PDK1, may be identified by alignment of the sequence of the kinase with that of known kinases in such a way as to maximise the match between the sequences. The alignment may be carried out by visual inspection and/or by the use of suitable computer programs, for example the GAP program of the University of Wisconsin Genetic Computing Group, which will also allow the percent identity of the polypeptides to be calculated. The Align program (Pearson (1994) in: Methods in Molecular Biology, Computer Analysis of Sequence Data, Part II (Griffin, AM and Griffin, HG eds) pp 365-389, Humana Press, Clifton).

The comparison of amino acid sequences or three dimension structure (for example from crystallography or computer modelling based on a known structure) may be carried out using methods well known to the skilled man, for example as described in WO 01/44497.

MAP kinase, MEK1, Cdk2 and Erk2 (for example) are not protein kinases having a hydrophobic pocket in the position equivalent to the hydrophobic (PIF binding) pocket of PDK1. MEK1, Cdk2 and ERK2 may have a larger hydrophobic pocket which interacts with an amino acid sequence motif (which may be Phe-Xaa-Phe-Pro, SEQ ID NO:101) which is not Phe-Xaa-Xaa-Phe (SEQ ID NO:99). Thus, these protein kinases do not have a hydrophobic pocket in the position equivalent to the said hydrophobic (PIF-binding) pocket of PDK1.

A further aspect of the invention provides a mutated protein kinase, wherein the protein kinase before mutation has a hydrophobic pocket in the position equivalent to the hydrophobic pocket (PIF-binding pocket) of human PDK1 that is defined by residues including Lys115, Ile118, Ile119, Val124, Val127 and/or Leu155 of full-length human PDK1 and further has a phosphate binding pocket in the position equivalent to the phosphate binding pocket of human PDK1 that is defined by residues including Lys76, Arg131, Thr148 and/or Gln150, and wherein one or more residues equivalent to Ile118, Val124, Val127, Lys76 or Thr148 forming part of the hydrophobic pocket or phosphate binding pocket of the protein kinase is mutated. It is preferred that the said protein kinase is PDK1. The said protein kinase may alternatively be, for example, SGK, PKB or p70 S6 kinase. It is particularly preferred that the residue at the position equivalent to residue Lys76 of PDK1 is mutated to an Ala. The mutated protein kinase may be useful in determining whether a polypeptide or compound interacts with the hydrophobic (PIF binding) pocket or phosphate binding pocket of the unmutated protein kinase. For example, the abilities of a compound (including polypeptide) to bind to the mutated and unmutated protein kinase, or to modulate the activity of the protein kinase towards one or more substrates of the protein kinase, may be measured and compared.

The mutated protein kinase may alternatively or in addition be mutated at a residue forming part of the "hydroxyl-pocket" discussed in Example 6, for example the residue equivalent to Thr222 and/or Gln 220 of full length human PDK1. These residues are involved in the binding of the UCN-01 7-hydroxyl group.

A further aspect of the invention provides a polynucleotide encoding a mutated protein kinase of the invention. A still further aspect of the invention provides a recombinant polynucleotide suitable for expressing a

mutated protein kinase of the invention. A yet further aspect of the invention provides a host cell comprising a polynucleotide of the invention.

A further aspect of the invention provides a method of making a mutated protein kinase of the invention, the method comprising culturing a host cell of the invention which expresses said mutated protein kinase and isolating said mutated protein kinase.

A further aspect of the invention provides a mutated protein kinase obtainable by the above method.

Examples of these aspects of the invention are provided in Example 1, and may be prepared using routine methods by those skilled in the art, for example as described in WO 00/35946.

For example, the above mutated protein kinase may be made by methods well known in the art and as described below and in Example 1 or 2, for example using molecular biology methods or automated chemical peptide synthesis methods.

It will be appreciated that peptidomimetic compounds may also be useful. Thus, by "polypeptide" or "peptide" we include not only molecules in which amino acid residues are joined by peptide (-CO-NH-) linkages but also molecules in which the peptide bond is reversed. Such retro-inverso peptidomimetics may be made using methods known in the art, for example such as those described in Mézière *et al* (1997) *J. Immunol.* 159, 3230-3237, incorporated herein by reference. This approach involves making pseudopeptides containing changes involving the backbone, and not the orientation of side chains. Retro-inverse peptides, which contain NH-CO

bonds instead of CO-NH peptide bonds, are much more resistant to proteolysis.

Similarly, the peptide bond may be dispensed with altogether provided that an appropriate linker moiety which retains the spacing between the $C\alpha$ atoms of the amino acid residues is used; it is particularly preferred if the linker moiety has substantially the same charge distribution and substantially the same planarity as a peptide bond.

It will be appreciated that the peptide may conveniently be blocked at its N- or C-terminus so as to help reduce susceptibility to exoproteolytic digestion.

The invention further provides a method of identifying a compound that modulates the protein kinase activity of a protein kinase having a hydrophobic pocket and phosphate binding pocket in the positions equivalent to the hydrophobic (PIF binding) pocket and phosphate binding pocket of PDK1, as defined above (for example PDK1), comprising the step of determining the effect of the compound on the protein kinase activity of, or ability of the compound to bind to the said mutated protein kinase of the invention.

The method may further comprise determining the effect of the compound on the protein kinase activity of, or ability of the compound to bind to, the protein kinase (for example PDK1) which is not mutated at the said residue. When the protein kinase is PDK1, it may lack a functional PH domain (ie it may lack a PH domain capable of binding a phosphoinositide).

It will be appreciated that the protein kinase or mutated protein kinase may be a fusion protein comprising a tag, for example to aid purification, for example a GST tag, as described in Example 1.

The capability of the said PDK1 (or, for example, SGK, PKB, PKA or p70 S6 kinase) polypeptide with regard to interacting with or binding to a polypeptide or other compound may be measured by any method of detecting/measuring a protein/protein interaction or other compound/protein interaction, as discussed further below. Suitable methods include methods analagous to those described in Example 1, as well as other methods, for example yeast two-hybrid interactions, co-purification, ELISA, co-immunoprecipitation and surface plasmon resonance methods. Thus, the said PDK1 (or SGK, PKB, PKA or p70 S6 kinase) may be considered capable of binding to or interacting with a polypeptide or other compound if an interaction may be detected between the said PDK1 polypeptide and the said interacting polypeptide by ELISA, co-immunoprecipitation or surface plasmon resonance methods or by a yeast two-hybrid interaction or copurification method, for example as described in Example 1.

It is preferred that the interaction can be detected using a surface plasmon resonance method, as described in Example 1. The interacting polypeptide (for example a polypeptide comprising a phosphorylated "hydrophobic motif", for example S6K-pHM; see example 1) may be immobilised on the test surface, for example it can be coupled through amino groups to a SensorChip CM5™, according to the manufacturer's instructions, or a biotinylated polypeptide can be bound to an avidin coated SensorChip SA. The protein kinase (at concentrations between, for example 0 and between 10μM and 1.0μM, for example 2μM) is then injected over the surface and steady state binding determined in each case. From these measurements a K_d can be determined. It is preferred that the interaction has a K_d of less than 8μM, more preferably less than 5μM, 2μM, 1μM, 500nM, 300nM, 200nM or 100nM, for example about 150nM. Alternatively, a K_d can be determined for a polypeptide or other compound in competition with the immobilised polypeptide (or other compound). The protein kinase (for

example at a concentration of 0.5μM) is mixed with free polypeptide (for example, at concentrations between 0 and 3μM) and the mixture injected over the immobilised polypeptides. The steady state binding is determined in each case, from which the K_d of the interaction can be determined using the Cheng-Prescott relationship. Alternatively, the interaction may be expressed in terms of an observed response or relative observed responses, measured in terms of mass of protein bound to the surface, as described in Example 2. For example, the polypeptide may be immobilised by amino coupling to a SensorChip CM5 and each protein kinase (for example different mutated protein kinases, as discussed below) for example at a concentration of 1.0μM or a range of concentrations, injected over the immobilised polypeptide. Alternatively, the polypeptide may be immobilised on a SA SensorChip and each protein kinase, for example at a concentration of 40nM or a range of concentrations injected over the immobilised polypeptide. The steady state response for each protein kinase is determined, for example expressed in Response Units (RU). 1000RU corresponds to 1 ng/mm^2 of protein bound to the surface. A response of less than 10RU may indicate that no interaction has taken place. A response of at least 10RU may indicate that the immobilised and injected molecules interact with each other.

It will be appreciated that the above methods may be used to determine whether a particular polypeptide or compound interacts with a protein kinase or mutated protein kinase.

The effect of the compound on the rate or degree of phosphorylation of a hydrophobic pocket and/or phosphate binding pocket-dependent substrate may be determined. A compound may be selected that decreases the protein kinase activity of the said protein kinase, for example PDK1,

towards a hydrophobic pocket-dependent substrate or a phosphate binding pocket-dependent substrate and does not affect or increases the protein kinase activity towards a hydrophobic pocket or phosphate binding pocket-independent substrate, for example PKB when the kinase is PDK1. An activator of PDK1 may mimic insulin and may be useful in treating diabetes or obesity, and may protect cells from apoptosis.

Compounds that bind specifically to the phosphate binding site may activate PDK1 (or other AGK kinase having a phosphate binding site). Also compounds that bind to the residues forming part of the pohsphate binding site might transduce the negative effect and inhibit the kinase activity. A compound interacting with the phosphate binding site of PDK1 may be an activator, but only of a subset of substrates. Some substrates of PDK1 require the interaction with the phosphate binding site, such as S6K and SGK.

To generate a specific molecule that could bind to the phosphate and/or PIF-binding pocket of PDK1 a anti-idiotype strategy using combinatorial RNA libraries could be employed. Previous studies have established that Combinatorial RNA libraries can be used to isolate specific ligands, called aptamers, for virtually any target molecule by a procedure probably best known as SELEX (Ellington, A. D., and Szostak, J. W. (1990) Nature 346, 818-822; Tuerk, C., and Gold, L. (1990) Science 249, 505-510). Using this approach RNA molecules that interact with antibodies raised against PIFtide or peptides that encompass the hydrophobic motif of AGC kinases which are phosphorylated at their hydrophobic motif would be selected (preferably antibodies that are specific for the phosphorylated form ie bind the phosphorylated form but not the non-phosphorylated form). These RNA species then may have the intrinsic conformation to interact with the phosphate binding (and possibly also the PIF-binding) pocket(s) of PDK1.

Antibodies to the phosphate binding pocket may be produced. For example, animals could be immunised with wild type PDK1. Serum could then be purified with a column where the resin is coated with wild type PDK1 used for the immunisation. Specific antibodies could then be passed through columns coated with mutant PDK1 molecules differing only in that they have specific mutations in the phosphate binding pocket, such as Arg131, Lys76 or Gln150, for example mutated to Ala. Antibodies that don't bind to this mutant will either be specific antibodies that recognise the specific motifs or antibodies that are sensitive to the conformational changes associated with these mutations. The opposite development could also be performed: antibodies against a mutant PDK1 having a specific mutation(s) in the phosphate binding pocket, such as Arg131, Lys76 or Gln150, for example mutated to Ala, could be produced and the serum further purified through columns coated with wild type PDK1.

Thus, a further aspect of the invention provides an antibody reactive with the phosphate binding pocket of PDK1 or other hydrophobic pocket (PIF binding pocket)-containing protein kinase having a hydrophobic pocket in the position equivalent to the hydrophobic pocket of human PDK1 that is defined by residues including Lys115, Ile118, Ile119, Val124, Val127 and/or Leu155 of full-length human PDK1 and further having a phosphate binding pocket in the position equivalent to the phosphate binding pocket of human PDK1 that is defined by residues including Lys76, Arg131, Thr148 and/or Gln150. A further aspect of the invention provides an antibody reactive with PDK1 or other phosphate-binding pocket–containing protein kinase as defined above but not with the said protein kinase mutated at the phosphate binding site, or *vice versa*. A further aspect of the invention provides a method for preparing or selecting an antibody wherein the antibody is prepared or selected against a said protein kinase (for example

PDK1) unmutated at the phosphate binding site and a said protein kinase mutated at the phosphate binding site.

By the term "antibody" is included synthetic antibodies and fragments and variants (for example as discussed above) of whole antibodies which retain the antigen binding site. The antibody may be a monoclonal antibody, but may also be a polyclonal antibody preparation, a part or parts thereof (for example an F_{ab} fragment or $F(ab')_2$) or a synthetic antibody or part thereof. Fab, Fv, ScFv and dAb antibody fragments can all be expressed in and secreted from *E. coli*, thus allowing the facile production of large amounts of the said fragments. By "ScFv molecules" is meant molecules wherein the V_H and V_L partner domains are linked via a flexible oligopeptide. IgG class antibodies are preferred.

Suitable monoclonal antibodies to selected antigens may be prepared by known techniques, for example those disclosed in "Monoclonal Antibodies: A manual of techniques", H. Zola (CRC Press, 1988) and in "Monoclonal Hybridoma Antibodies: techniques and Applications", JGR Hurrell (CRC Press, 1982), modified as indicated above. Bispecific antibodies may be prepared by cell fusion, by reassociation of monovalent fragments or by chemical cross-linking of whole antibodies. Methods for preparing bispecific antibodies are disclosed in Corvalen *et al,* (1987) *Cancer Immunol. Immunother.* **24**, 127-132 and 133-137 and 138-143.

A general review of the techniques involved in the synthesis of antibody fragments which retain their specific binding sites is to be found in Winter & Milstein (1991) *Nature* **349**, 293-299.

For example, an antibody that does not bind PDK1 Arg131Ala could be specifically recognising this residue in the phosphate binding site, but could

also be recognising specifically the inactive conformation of PDK1, which is stabilised by Arg 131. The opposite development could also be performed: antibodies against a mutant PDK1 Arg131Ala could be produced and the serum further purified through columns coated with wild type PDK1. In this way, antibodies may be prepared that would either not be able to interact with the phosphate binding site Arg 131 but only when a small residue is in its place, or antibodies that are probes for the active conformation of PDK1. These conformational probes could be used in high throughoutput screenings, HTS, in the search of compounds that are capable of modifying the conformation of the given protein kinase. Antibodies could have been produced with previous knowledge to detect active protein kinases by immunising with active protein kinases, but in those cases, the antibodies would have recognised also the phosphorylation events that make a protein kinase be active. In the methodology here described using antibodies, the conformational probes could be easily isolated. Furthermore, antibodies obtained from an active protein kinase (with overall modifications that make it active) could be further purified through a column coated with the inactive protein kinase (keeping the non bound fraction) and then further purifyied on a column coated with a protein kinase consisting of an activating mutation (such as R131A in the case of PDK1), retaining the specifically bound fraction, which could be an active conformation probe. This type of approach could also allow the development of conformation specific probes by the use of activating or inhibiting mutations.

A further aspect of the invention provides a kit of parts useful in carrying out a method according to the preceding aspect of the invention, comprising (1) a mutated protein kinase of the invention and (2) the protein kinase which is not a mutated said protein kinase as defined above.

The protein structures described herein (for example with the co-ordinates shown in Examples 2, 3 or 4, or structures modelled thereon) may be useful in designing further reagents that may be useful in drug screening assays or characterisation of protein kinase activity or regulation. For example, such structures may be useful in designing mutants that may be useful in FRET-based activities, for example in which surface residues near to binding sites are mutated to cysteines to allow coupling of chromophores. For example, the cysteine residue may be fluorescently-labelled, and a change in fluorescence intensity or frequency may be detected in an assay. Any thiol-reactive fluorophore, for example BADAN (see, for example, Wadum et al Fluorescently labeled bovine acyl-CoA binding protein – an acyl-CoA sensor. Interaction with CoA and acyl-CoA esters and its use in measuring free acyl CoA esters and non-esterified fatty acids (NEFA); Hammarstrom et al (2001) *Biophys J* **80(6)**, 2867-2885; Schindel *et al* (2001) *Eur J Biochem* **268(3)**, 800-808), could be used to label the cysteine. An alternative suitable fluorophore is Acrylodan (Richieri et al (1992) *J Biol Chem* **267(33)**, 23495-23501).

It will be appreciated that the invention provides screening assays for drugs which may be useful in modulating, for example either enhancing or inhibiting, the protein kinase activity of a protein kinase (for example, the protein kinase activity towards a particular substrate) having a hydrophobic pocket in the position equivalent to the hydrophobic pocket of Protein Kinase A (PKA) that is defined by residues including Lys76, Leu116, Val80 and/or Lys111 of full-length mouse PKA, for example PDK1, SGK, PKB, PKA or p70 S6 kinase, for example the PDK1 or PDK2 activity (as discussed above) of PDK1. The compounds identified in the methods may

themselves be useful as a drug or they may represent lead compounds for the design and synthesis of more efficacious compounds.

The compound may be a drug-like compound or lead compound for the development of a drug-like compound for each of the above methods of identifying a compound. It will be appreciated that the said methods may be useful as screening assays in the development of pharmaceutical compounds or drugs, as well known to those skilled in the art.

The term "drug-like compound" is well known to those skilled in the art, and may include the meaning of a compound that has characteristics that may make it suitable for use in medicine, for example as the active ingredient in a medicament. Thus, for example, a drug-like compound may be a molecule that may be synthesised by the techniques of organic chemistry, less preferably by techniques of molecular biology or biochemistry, and is preferably a small molecule, which may be of less than 5000 daltons. A drug-like compound may additionally exhibit features of selective interaction with a particular protein or proteins and be bioavailable and/or able to penetrate cellular membranes, but it will be appreciated that these features are not essential.

The term "lead compound" is similarly well known to those skilled in the art, and may include the meaning that the compound, whilst not itself suitable for use as a drug (for example because it is only weakly potent against its intended target, non-selective in its action, unstable, difficult to synthesise or has poor bioavailability) may provide a starting-point for the design of other compounds that may have more desirable characteristics.

It is appreciated that screening assays which are capable of high throughput operation are particularly preferred. Examples may include cell based

assays and protein-protein binding assays. An SPA-based (Scintillation Proximity Assay; Amersham International) system may be used. For example, beads comprising scintillant and a substrate polypeptide or interacting polypeptide may be prepared. The beads may be mixed with a sample comprising ^{32}P- or ^{33}P-γ-labelled PDK1 or other protein kinase or mutated protein kinase (as defined above) and with the test compound. Conveniently this is done in a 96-well or 384-well format. The plate is then counted using a suitable scintillation counter, using known parameters for ^{32}P or ^{33}P SPA assays. Only ^{32}P or ^{33}P that is in proximity to the scintillant, i.e. only that bound to the substrate or interacting polypeptide that is bound to the beads, is detected. Variants of such an assay, for example in which the substrate or interacting polypeptide is immobilised on the scintillant beads *via* binding to an antibody or antibody fragment, may also be used.

It will be understood that it will be desirable to identify compounds that may modulate the activity of the protein kinase *in vivo*. Thus it will be understood that reagents and conditions used in the method may be chosen such that the interactions between, for example, the said protein kinase and the interacting polypeptide, are substantially the same as between the human protein kinase and a naturally occuring interacting polypeptide comprising the said amino acid sequence. It will be appreciated that the compound may bind to the protein kinase, or may bind to the interacting polypeptide.

The compounds that are tested in the screening methods of the assay or in other assays in which the ability of a compound to modulate the protein kinase activity of a protein kinase, for example a hydrophobic pocket-containing protein kinase, as defined above, may be measured, may be compounds that have been selected and/or designed (including modified)

using molecular modelling techniques, for example using computer techniques.

A further aspect of the invention is a compound identified or identifiable by the above selection/design methods of the invention, for example an RNA molecule or antibody identifiable as defined above.

A still further aspect of the invention is a compound (or polypeptide or polynucleotide) of the invention or identified or identifiable by the above selection/design methods of the invention, for use in medicine. Conditions or diseases in which such compounds, polypeptides or polynucleotides may be useful are indicated below.

The compound (or polypeptide or polynucleotide) may be administered in any suitable way, usually parenterally, for example intravenously, intraperitoneally or intravesically, in standard sterile, non-pyrogenic formulations of diluents and carriers. The compound (or polypeptide or polynucleotide) may also be administered topically, which may be of particular benefit for treatment of surface wounds. The compound (or polypeptide or polynucleotide) may also be administered in a localised manner, for example by injection. The compound may be useful as an antifungal (or other parasitic, pathogenic or potentially parasitic or pathogenic organism) agent.

A further aspect of the invention is the use of a compound (or polypeptide or polynucleotide) as defined above in the manufacture of a medicament for the treatment of a patient in need of modulation of signalling by a protein kinase having a hydrophobic/phosphate binding pocket, as defined above, for example PDK1, SGK, PKB or p70 S6 kinase, for example insulin signalling pathway and/or PDK1/PDK2/SGK/PKB/p70 S6

kinase/PRK2/PKC signalling. The patient may be in need of inhibition of a said hydrophobic/phosphate binding pocket-containing kinase in an infecting organism, for example the patient may have a fungal infection for which treatment is required. The compound may inhibit the infecting organism's (for example fungal) hydrophobic/phosphate binding pocket-containing protein kinase, but may not inhibit the patient's equivalent hydrophobic/phosphate binding pocket-containing protein kinase.

A further aspect of the invention is a method of treating a patient in need of modulation of signalling by a protein kinase having a hydrophobic/phosphate binding pocket as defined above, for example PDK1, SGK, PKB or p70 S6 kinase, for example insulin signalling pathway and/or PDK1/PDK2/SGK/PKB/p70 S6 kinase/PRK2/PKC signalling, wherein the patient is administered an effective amount of a compound (or polypeptide or polynucleotide) as defined above.

A compound that is capable of reducing the activity of PKC, for example PKCβ, PRK1 or 2, PDK1 (ie the PDK1 and/or the PDK2 activity), PKB, SGK or p70 S6 kinase may be useful in treating cancer. PDK1, for example *via* PKB and/or SGK, may be capable of providing a survival signal that protects cells from apoptosis induced in a variety of ways (reviewed in Cross *et al* (1995) *Nature* **378**, 785-789 and Alessi & Cohen (1998) *Curr. Opin. Genetics. Develop.* **8**, 55-62). Thus, such compounds may aid apoptosis. Reduction of the activity of PDK1, PKB, SGK and/or p70 S6 kinase may promote apoptosis and may therefore be useful in treating cancer. Conditions in which aiding apoptosis may be of benefit may also include resolution of inflammation.

A compound is capable of increasing the activity of PDK1, PKB, SGK or p70 S6 kinase may be useful in treating diabetes or obesity, or may be

useful in inhibiting apoptosis. Increased activity of PDK1, PKB, SGK or p70 S6 kinase may lead to increased levels of leptin, as discussed above, which may lead to weight loss; thus such compounds may lead to weight loss. For example, such compounds may suppress apoptosis, which may aid cell survival during or following cell damaging processes. It is believed that such compounds are useful in treating disease in which apoptosis is involved. Examples of such diseases include, but are not limited to, mechanical (including heat) tissue injury or ischaemic disease, for example stroke and myocardial infarction, neural injury and myocardial infarction. Thus the patient in need of modulation of the activity of PDK1, PKB, SGK or p70 S6 kinase may be a patient with cancer or with diabetes, or a patient in need of inhibition of apoptosis, for example a patient suffering from tissue injury or ischaemic injury, including stroke.

Thus, a further aspect of the invention provides a method of treating a patient with an ischaemic disease the method comprising administering to the patient an effective amount of a compound identified or identifiable by the screening methods of the invention.

A still further invention provides a use of a compound identifiable by the screening methods of the invention in the manufacture of a medicament for treating an ischaemic disease in a patient.

Thus, a further aspect of the invention provides a method of treating a patient with an ischaemic disease the method comprising administering to the patient an effective amount of a compound identifiable by the screening methods of the invention.

If the patient is a patient in need of promotion of apoptosis, for example a patient with cancer, it is preferred that the compound of the invention that is

used in the preparation of the medicament is capable of reducing the activity of PDK1, PKB, SGK or p70 S6 kinase. If the patient is a patient with diabetes or a patient in need of inhibition of apoptosis, for example a patient with ischaemic disease, it is preferred that the compound of the invention that is used in the preparation of the medicament is capable of increasing the activity of PDK1, PKB, SGK or p70 S6 kinase.

All documents referred to herein are hereby incorporated by reference.

The invention is now described in more detail by reference to the following, non-limiting, Figures and Examples.

Figure legends

1. Overview of the PDK1 structure.

The PDK1 kinase domain backbone is shown in a ribbon representation, with the secondary structure elements for residues 74-163 in the lower half of the Figure and for residues 164- 358 in the upper part of the Figure. Helix αG, encompassing residues 287-295 (which makes a crystal contact to a symmetry related PDK1 molecule, Fig. 2), is at the bottom right of the Figure. Key residues discussed in the text are shown as a sticks model. ATP is shown as a sticks model. A simulated annealing |Fo −|Fc`, φ calc map is shown in black, contoured at 3 σ. The phosphoserine and the sulphate discussed in the text are also shown.

2. The PIF-pocket

A. A surface representation of the putative PIF binding pocket is shown and compared to the pocket interacting with the C-terminal FXXF (SEQ ID NO: 1) motif in PKA. For PDK1, the αG helix of a symmetry-related molecule

is shown as a ribbon, in PKA the C-terminus is also shown as a ribbon. Aromatic amino acids buried in the pocket are shown as sticks; further side chains interacting with the pocket are also shown as sticks. Helix αC is also shown as a ribbon in both PDK1 and PKA (at bottom of images). In PDK1,

5 the ordered sulphate ion and basic residues interacting with it are also shown.

B. A stereo image of the residues lining the PIF-pocket is shown. The PDK1 backbone is shown as a grey ribbon. Side chains are shown as sticks.

10 Hydrogen bonds to the sulphate ion are shown as black dotted lines.

3. Structure-based sequence alignment

The sequences of PKA (SEQ ID NO: 103) and PDK1 (SEQ ID NO:102) are aligned according to a structural.superposition performed in WHAT IF

15 [Vriend, 1990]. Sequence numbering is according to PDK1. β -strands (arrows) and α -helices (bars) are shown for the PDK1 structure according to a DSSP [Kabsch and Sander, 1983] secondary structure assignment, and labelled consistent with the secondary structure element names proposed for PKA [Taylor and Radzioandzelm, 1994]. Residues lining the PIF-pocket are

20 indicated with a black dot. Residues hydrogen bonding the sulphate ion are indicated by arrows. The PDK1 residues equivalent to Ser53 and Gly186 in PKA, are labelled with an asterisk.

4. PDK1 binding & activation studies

25 Binding and activation of wild type and mutant forms of PDK1 to a phosphopeptide derived from the hydrophobic motif of S6K1. The binding of the wild type (wt) PDK1 and indicated mutants to a phosphopeptide comprising the hydrophobic motif of S6K1 (S6K-pHM: SESANQVFLGFT*YVAPSV, where T* indicates phospho-threonine, SEQ

ID NO:104) was analysed by surface plasmon resonance as described in the Materials and Methods.

A. The sensor chip SA was coated with 12RUs of the biotinylated S6K-pHM peptide and the binding was analysed following injection of 270 nM wild type PDK1, PDK1 [T148A] and PDK1 [K76A]. No detectable binding to S6K-pHM was observed using PDK1 [R131A] or PDK1 [Q150] (data not shown).

B. As in **A.** except that binding was analysed over a range of PDK1 concentrations (2-2150nM). The response level at the steady state binding is plotted versus the log of the PDK1 concentration. The estimated Kd was obtained by fitting the data to a sigmoid curve using Kaleidagraph software. Kd for wild type PDK1 was 642 – 131 nM, PDK1 [T148A] was 64 – 7 nM and PDK1 [K76A] was 1744 – 167 nM. No detectable binding of PDK1 to the non-phosphorylated S6K-HM peptide (SESANQVFLGFTYVAPSV, SEQ ID NO:105) was detected.with wild type PDK1or any of the mutants (data not shown).

C. Activation of the indicated forms of PDK1 by S6K-pHM and S6K-HM. PDK1 activity was measured using the peptide substrate (T308tide) in the presence of the indicated concentrations of S6K-pHM (closed circles) and S6K-HM (open circles) as described in the methods. Assays were performed in triplicate and similar results obtained in 2 separate experiments. The results are the average – SD for a single experiment.

5. Interactions of regulatory phosphates with the αC helix

A. The PDK1 backbone is shown as a ribbon, with helix α C in the centre of the view. Key residues are shown as sticks. The sulphate ion and the phosphate on the activation loop are also shown. A sticks model of ATP is shown. Hydrogen bonds are shown as black dotted lines.

B. Alignment of the amino acid sequence forming part of the phosphate pocket on PDK1 with the equivalent region of the indicated AGC kinases. Identical residues are denoted by white letters on a black background and similar residues by gray boxes. Arrows indicate the residues corresponding to Lys 76, Arg131, Thr148 and Gln150 of PDK1 (SEQ ID NOs:12 and 144). The aligned amino acid sequences are as follows: PKBα (SEQ ID NOs: 13 and 145), S6K1 (SEQ ID NOs: 14 and 146), SGK1 (SEQ ID NOs: 15 and 147), and Rsk1 (SEQ ID NOs: 16 and 148).

6. Essential dynamics

A. Projection of all available PKA crystal structures (labelled dots) and the PDK1 structure (diamond) onto the first two eigenvectors (i.e. the ones with the two largest eigenvalues) calculated from the PKA structures.

B. Graphic representation of the motion along the first eigenvector, generated by projecting two structures at -4 nm (black) and +4 nm (grey).

7. Alignment of AGC protein kinase family members.

The alligned amino acid sequecnces and their respecptive corresponding sequence identifier are as follows:

P70S6Kalpha (SEQ ID NO: 17), P70S6Kbeta (SEQ ID NO: 18), P90RSK1 (SEQ ID NO: 19), P90RSK2 (SEQ ID NO: 20), P90RSK3 (SEQ ID NO: 21), MSK1 (SEQ ID NO: 22), MSK2 (SEQ ID NO: 23), PKBalpha (SEQ ID NO: 24), PKBbeta (SEQ ID NO: 25), PKBgamma (SEQ ID NO: 26), PRK1 (SEQ ID NO: 27), PRK2 (SEQ ID NO: 28), SGK1 (SEQ ID NO: 29), SGK3 (SEQ ID NO: 30), SGK2 (SEQ ID NO: 31), PKCbeta (SEQ ID NO: 32), PKCbetaII (SEQ ID NO: 33), PKCalpha (SEQ ID NO: 34), PKCgamma (SEQ ID NO: 35), PKCzeta (SEQ ID NO: 36), PKCiota (SEQ ID NO: 37), PKCdelta (SEQ ID NO: 38), PKAgamma (SEQ ID NO: 39), and PDK1 (SEQ ID NO: 40).

8. Staurosporine and UCN-01 electron density.

The staurosporine and UCN-01 molecules are shown in a stick representation. Hydrogen bonding atoms (Table 4) are labelled according to [49]. The unbiased $| F_o|-|F_c|$, ϕ_{calc} maps are contoured at 2.5 σ.

5   **9..Details of the inhibitor binding sites.**

The bridging water molecule is shown as a sphere. Hydrogen bonds are indicated by black dotted lines. Labelled residues hydrogen-bond the inhibitor molecules.

10   **Example 1: High resolution crystal structure of the human PDK1 catalytic domain defines the regulatory phosphopeptide docking site**

The 3-Phosphoinositide Dependent Protein Kinase-1 (PDK1) plays a key role in insulin/growth factor induced signalling pathways through

15   phosphorylation of downstream AGC-kinases such as Protein Kinase B/Akt and p70 ribosomal S6 kinase (S6K1). Here we describe the 2.0 Å crystal structure of the PDK1 kinase domain in complex with ATP. The structure defines the hydrophobic pocket termed the 'PIF-pocket'which plays a key role in mediating the interaction and phosphorylation of certain substrates

20   such as S6K1. In the PDK1 structure, this pocket is occupied by an extensive crystallographic contact with another molecule of PDK1, reminiscent of the interaction of Protein Kinase A with the hydrophobic motif at its C-terminus. Previous studies have shown that phosphorylation of S6K1 at its C-terminal PIF-pocket-interacting motif, promotes the

25   binding of S6K1 with PDK1, suggesting that there may be a phosphate docking site located nearby the PIF-pocket. Interestingly, close to the PIF-pocket on the PDK1 structure, there is an ordered sulphate ion, interacting tightly with four surrounding side chains. The roles of these residues were investigated through a combination of site directed mutagenesis and kinetic

30   studies, the results of which suggest that this region of PDK1 does indeed

represent a phosphate dependent docking site. An analogous phosphate binding regulatory motif may participate in the activation of other AGC kinases.

Results & Discussion

5   *Overall structure*

The structure of the catalytic domain of PDK1 was solved by molecular replacement and refined to an R-factor of 0.19 (Rfree=0.22). PDK1 assumes the classic bilobal kinase fold (Fig. 1) and is similar to the only other AGC kinase structure solved, that of PKA (RMSD.of 1.0 Å on C α atoms with

10   PDB entry 1STC [Prade et al., 1997]). The form of PDK1 that was crystallized comprised residues 51 to 359. The tip of the activation loop (residues 233-236) is disordered, as observed in other kinase structures [Johnson et al., 1996]. The N-terminus (residue 51-70), which is pointing into a large void generated by the crystallographic symmetry, is also

15   disordered. In contrast, the N-terminal extension to the kinase domain of PKA assumes an amphipathic a -helix (termed αA-helix), and packs against the kinase core [Knighton et al., 1991]. The cluster of hydrophobic residues that mediates this interaction in PKA is not present in PDK1, suggesting that the N-terminus of PDK1 could have a different function from that of

20   PKA. Interestingly, it has recently been shown that the N-terminus of PDK1 (residues 1-50) interacts with Ral guanine nucleotide exchange factors [Tian et al., 2002]. Thus, this region may assume a unique conformation in PDK1, which is not defined by the structure described here.

25   PDK1 was crystallised in the presence of ATP but in the absence of any divalent cations. In the early stages of the refinement well-defined density for the entire ATP molecule could be observed. ATP adopts a different conformation to that observed in other kinase-ATP complexes (Fig. 1).

Perhaps due to the absence of divalent cations, the generally observed kink between the β and γ phosphate caused by the interaction with such an ion, is not seen in the PDK1 structure.

It is known that PDK1 can phosphorylate itself on residue Ser 241 in the activation loop and that this phosphorylation is required for PDK1 activity [Alessi et al., 1997]. Indeed, we observed density for a phosphate attached to this residue (Fig. 1), and extensive interactions are observed between this phosphoserine and residues from the C-terminal lobe and αC-helix (Fig. 1). The interaction between Ser241 and the C-terminal lobe is similar to the equivalent interactions in PKA but as discussed below the binding to the αC-helix differs.

The PIF-pocket

As outlined in the introduction, PDK1 was postulated to possess a pocket (the 'PIF-pocket') in the small lobe of its catalytic domain, required for the binding of PDK1 to the hydrophobic motif of its substrates [Biondi et al., 2000]. The PDK1 structure described here indeed reveals such a pocket, and shows that it lies in a location similar to the FXXF (SEQ ID NO:1)-binding pocket in PKA (Fig. 2). PDK1 residues Lys115, Ile118, Ile119 on the αB helix (Fig. 2), Val124, Val127 on the αC helix and Leu155 on β -sheet 5 form an approximately 5 Å deep pocket. Previous work has shown that mutation of Leu 155 to Glu abolishes the ability of PDK1 to interact with a peptide that encompasses the hydrophobic motif of PRK2 (PIFtide) [Biondi et al., 2000] as well as with S6K1, SGK1, PKCζ and PRK2 [Balendran et al., 2000, Biondi et al., 2000]. In addition, mutation of Lys115, Ile119, Glu150, and Leu155 to alanine, reduced the affinity of PDK1 for PIFtide approximately 10-fold, but did not affect the ability to phosphorylate and

activate S6K1 and SGK1 [Biondi et al., 2001]. These results are in agreement with the crystal structure of the PIF-pocket, since Leu155 is located at the center and the other residues line the wall of the pocket (Fig. 2). Interestingly, in our structure, the PIF-pocket is occupied by helix αG of a symmetry related molecule (Fig. 2). Tyr288 and Phe291 make hydrophobic contacts in this pocket with almost all pocket-lining residues, remarkably reminiscent of the interactions of the phenylalanines in the FXXF motif in PKA and their hydrophobic docking site in the equivalent region of the kinase domain (Fig. 2). In addition, residues Glu287, Gln292, Ile295 and Lys296 on the symmetry related loop also form contacts with residues lining the PIF-pocket. In total, 244 ^{2} Å of accessible surface is buried by this contact, suggesting this is a tight interaction. However, the significance of this interaction is not clear as an oligomerisation event for PDK1 has not been demonstrated in solution previously. Indeed both the isolated catalytic domain of PDK1 that was crystallised and full length PDK1 migrate in gel filtration chromatography as apparent monomeric species (data not shown).

The phosphate pocket

As outlined in the introduction, substrates of PDK1, such as S6K1, interact with the PIF-pocket of PDK1 with higher affinity when they are phosphorylated at their hydrophobic motif. This suggested that a regulatory phosphate binding site may be located close to the PIF-pocket. During refinement of the PDK1 structure, it became clear that next to the PIF-pocket another small pocket was present, occupied by a tetrahedral oxy-anion (Fig. 2). As 2.0 M of sulphate was present in the crystallisation conditions, this was assigned as a sulphate ion. The ion interacts with four residues lining the pocket, namely Lys76, Arg131, Thr148 and Gln150.

Because of its close proximity to the PIF-pocket (approximately 5Å) it is possible that this sulphate-occupied pocket could represent the binding site for the phosphate on the phosphopeptide. To investigate this further, we mutated Lys76, Arg131, Thr148 and Gln150 to Ala, in order to verify the contribution of each of these residues in enabling PDK1 to interact with a peptide encompassing the hydrophobic motif of S6K1, in which the residue equivalent to Thr412 was phosphorylated (termed S6K-pHM). A quantitative surface plasmon resonance based binding assay (Fig. 4A) showed that wild type PDK1 interacted with S6K-pHM, with a Kd of 0.6 µM with S6K-pHM but not detectably to the non-phosphorylated form of this peptide (S6K-HM). The PDK1[R131A] and PDK1[Q150A] mutants did not detectably interact with S6K-pHM in this assay (Fig. 4B), confirming that the interactions these residues make in the PDK1 structure are of key importance. The PDK1[K76A] mutant interacted with 3-fold lower affinity (Kd 1.7 µM) with S6K-pHM. The PDK1[T148A] mutant however possessed about 10-fold higher (Kd 0.06 µM) affinity for S6K-pHM than wild type PDK1. Moreover, the dissociation of PDK1[T148A] from S6K-pHM is markedly slower than that of wild type PDK1 or PDK1[K76A] (Fig 4A). These findings are unexpected as Thr148 is within hydrogen bonding distance of the sulphate (Fig. 2), but indicate that this residue may play a role in enabling the dissociation of PDK1 from S6K-pHM.

The binding of PDK1 to PIFtide stimulates up to 4-fold the rate at which PDK1 phosphorylates a small peptide that encompasses the activation loop motif of PKB (termed T308tide) [Biondi et al., 2000], indicating that occupancy of the PIF-pocket of PDK1 activates the enzyme. Similarly, the binding of a phosphopeptide corresponding to the hydrophobic motif of RSK stimulated PDK1 activity 6-fold [Frodin et al., 2000]. We have now also found that the binding of S6K-pHM to wild type PDK1 induces a

maximal 5-fold activation, with a half maximal activation occurring at a concentration of approximately 50 μM S6K-pHM (Fig. 4C). We next assayed the specific activities of PDK1[K76A], PDK1[R131A], PDK1[T148A] and PDK1[Q150A] mutants in the absence and presence of increasing concentrations of S6K-pHM (Fig. 4C). The PDK1[K76A] possessed the same specific activity towards T308tide in the absence of S6K-pHM as wild type PDK1, but an approximately 3-fold higher concentration of S6K-pHM was required to half maximally activate PDK1[K76A], consistent with the reduced affinity of this form of PDK1 for S6K-pHM (Fig. 4A,B). The PDK1[R131A] mutant possessed a 3-fold higher specific activity towards Thr308tide in the absence of S6K-pHM (Fig. 4C), as has been observed previously with certain other PIF-pocket mutants of PDK1(PDK1[K115A] and PDK1[L155E]) [Biondi et al., 2000]. However, in accordance with the inability of PDK1[R131A] to bind S6K-pHM in the Biacore assay (Fig. 4B), it was not significantly activated by concentrations of S6K-pHM below 0.1 mM and its activity was only moderately further increased by the addition of high concentrations (0.3 and 1 mM) of S6K-pHM (Fig. 4C). The activity of a mutant of PDK1 in which both Lys76 and Arg131 were changed to Ala was activated even less significantly by these high concentrations of S6K-pHM. The PDK1[T148A] and PDK1[Q150A] mutants possessed similar specific activity towards T308tide as wild type PDK1 in the absence of S6K-pHM. The PDK1[T148A] mutant was activated similarly as wild type PDK1 by S6K-pHM and consistent with the inability of PDK1[Q150A] to interact with S6K-pHM, this mutant of PDK1 was not significantly activated by concentrations of S6K-pHM below 0.1 mM but at 0.3 and 1 mM peptide a 2-3 fold activation was observed (Fig. 4).

At very high peptide concentrations (0.3-1 mM) the non-phosphorylated S6K-HM

peptide induced a small (<2-fold) activation of PDK1 (Fig. 4C). Interestingly, despite the PDK1[K76A] and PDK1[R131A] mutants being markedly less able to interact with the phosphorylated S6K-pHM peptide, than wild type PDK1, high concentrations of the S6K-HM peptide activated PDK1[K76A] and PDK1[R131A] to a similar extent as wild type PDK1, indicating that the ability of these mutants to interact weakly with the S6K-HM peptide was not affected.

We evaluated the sequence conservation in the phosphate pocket of the insulin/growth factor-activated AGC family kinases (PKBα, S6K1, SGK1 and RSK1). Sequence alignments indicate that this pocket is conserved amongst these kinases (Fig 5A). The most conserved residue is Gln150 which is found in all of these AGC kinases and the residue equivalent to Lys76 is always a basic residue (Fig. 5A). Arg131 is conserved in S6K1, SGK1 and RSK1 but not in PKBα, or PKBβ or PKBγ, where it is an Asn or Ser. Thr148 is conserved in PKBα and SGK1 but is an Ala in S6K1 and RSK1. Interestingly, we have found the Thr 148Ala mutation in PDK1 did not disrupt the phosphate pocket (Fig 4). As PKBα, S6K1, SGK1 and RSK1 require to be phosphorylated at their hydrophobic motif to be maximally activated, it is tempting to speculate that the C-terminal hydrophobic motifs of these enzymes, when phosphorylated, bind to their own PIF/phosphate pockets, thereby generating a network of interactions similar to that of PDK1. In support of this, PKBα, S6K1, SGK1 and RSK1 also require phosphorylation of their activation loop at the position equivalent to Ser241 for activity. Consistent with PKA not possessing a phosphate pocket, Lys76 and Gln150 are not conserved in PKA (Fig. 3), and indeed such a pocket is not observed in the PKA structure (Fig. 2).

The αC helix

The PDK1 structure shows that, as in other protein kinases [Johnson et al., 2001, Husen and Kuriyan, 2002], the αC helix (residues 124-136) is a key signal integration motif in the kinase core. One turn of the PDK1 αC helix (residues 129-131, Figs. 3, 5) links together the N-terminal lobe, the C-terminal lobe and the active site. Arg129 points towards the activation loop and forms two hydrogen bonds with the phosphorylated Ser241, whereas Arg131 forms two hydrogen bonds with the sulphate in the phosphate pocket (Fig. 5). Glu130 coordinates Lys111 which forms a hydrogen bond with the α-phosphate of the bound ATP. This interaction is conserved in all protein kinases and shown to be crucial for activation [Johnson et al., 2001, Husen and Kuriyan, 2002]. An additional residue, His126, forms a third hydrogen bond with the phosphorylated Ser241. Val124 and Val127 on the αC helix are involved in formation of the PIF-pocket (Fig. 5).

The αC helix provides a structural link between the putative phosphopeptide binding pocket and the phosphoserine in the activation loop. The fact that R131A has higher basal activity than wild type PDK1 may indicate that this residue plays tuning role in the PDK1 structure, not only participating in the activation of PDK1 in the presence of a phosphate ion, but also on keeping the equilibrium of the enzyme towards an inactive conformation in the absence of S6K-pHM. To our knowledge this is the first report of a kinase structure in which the αC helix is positioned by 2 regulatory phosphate binding sites on either side of the helix (Fig 5). This provides a possible sensor-mechanism for linking the.phosphorylation-state of the activation loop and the phosphopeptide binding event in the PIF-pocket to PDK1 activity.

Activation state

All structures of PKA solved to date show a phosphorylated T-loop and are therefore assumed to be in an active state. In addition to the unphosphorylated versus phosphorylated states of PKA, there appear to be two main conformational states possible for the latter [Zheng et al., 1993, Johnson et al., 2001]. In the active, closed conformation, all residues are positioned to facilitate phosphoryl transfer. In contrast, the inactive, open conformation is seen in absence of a nucleotide, and differs from the closed conformation by conformational changes of the N-terminal and C-terminal domains with respect to each other. In addition, three 'intermediate' structures were described from PKA, having either adenosine (PDB entry 1BKX [Narayana et al., 1997]) or the inhibitors staurosporine (PDB entry 1STC [Prade et al., 1997]) and balanol (PDB entry 1BX6 [Narayana et al., 1999]) in the ATP-binding site. Taylor and colleagues have described a method to distinguish between the active and inactive conformations, based on three distances: His87-pThr197 (αC helix positioning), Ser53-Gly186 (opening of the glycine-rich loop) and Glu170-Tyr330 (C-terminal tail distance to active site) [Johnson et al., 2001]. In PDK1, only one of these distances, the opening state of the glycine rich loop, can be measured due to sequence conservation (Fig. 3). This distance is 12.4 Å , similar to a PKA intermediate conformation (this distance in PKA is 14.2Å for the open, 11.8 Å for intermediate and 10.0 Å for the closed conformation [Johnson et al., 2001]). To allow a more direct comparison of the PDK1 structure with the available PKA structures, we have analysed the conformational state of PDK1 in detail using a novel approach, which involves a principal component analysis (also called "essential dynamics" [Amadei et al.,1993]) of the crystallographic coordinates. In short, this involves the construction of a covariance matrix containing the correlations between atomic shifts (with respect to an average structure) in the ensemble of all available PKA crystal structures. Diagonalisation of this matrix gives eigenvector/eigenvalue sets which describe concerted shifts of atoms

(eigenvectors) together with the corresponding mean square fluctuation of the structures (eigenvalues). This approach allows a condensed description of PKA conformational states using only a few degrees of freedom, as shown previously for a range of other proteins [van Aalten et al., 1997,van Aalten et al., 2000,deGroot et al., 1998]. Diagonalisation of a covariance matrix built from the backbone atoms of residues 37-196, 198-283 and 286-305 results in a set of eigenvectors that describe concerted motions of the PKA backbone. In Fig. 6A, all PKA structures are projected on a subspace spanned by the first two eigenvectors (i.e. those with the two largest eigenvalues). It appears that the PKA structures cluster in three main areas along the first eigenvector. On the left of the average structure (which by definition has a projection of 0.0 on all eigenvectors) are the structures that are known to be in the "open" conformation (Fig. 6A). Around the average structure lie the structures that have been shown to be in an "intermediate" conformation (complexes with the inhibitors staurosporine, balanol and adenosine). More to the right of the average structure are the PKA structures that are known to be in the "closed" conformation. Thus, we have captured the conformational state of PKA in a single variable, the translation along the first eigenvector. This is further clarified by investigation of the atomic shifts described by this eigenvector in Cartesian space (Fig. 6B). A hinge-bending motion is observed between the N-terminal and C-terminal lobes, opening and closing the active site. It is now possible directly to compare the PDK1 conformational state by projecting the structure (backbone atoms only) onto the PKA eigenvectors. Fig. 6A shows that the conformation of PDK1 is close to the PKA structures that are in an "intermediate" conformation, consistent with the other structural analyses described above.

Conclusions

We have reported the structure of the PDK1 catalytic domain, which, although similar to PKA, has revealed important features that increase our understanding of the mechanism by which PDK1 is regulated. The

5   structure, together with mutational analyses, defines a phosphopeptide binding pocket, consisting of a separate hydrophobic PIF-pocket and a phosphate binding site, which mediates the interaction of PDK1 with the phosphorylated hydrophobic motif of S6K. This is consistent with the previous hypothesis that phosphorylation of S6K and SGK [Biondi et al.,

10   2001] as well as RSK [Frodin et al., 2000] at their FXXFS/T hydrophobic motif (SEQ ID NO:2) is the trigger for their interaction and phosphorylation by PDK1. In this mechanism the PIF-pocket would physiologically only interact with the Phe residues when the Ser/Thr residue is phosphorylated. Furthermore, as the phosphate pocket is conserved in other AGC kinases,

15   the structural features and network of interaction of the phosphate pocket with the αC-helix on PDK1, could provide insight into the mode of activation of other AGC kinases.

Experimental Procedures

20   *Materials*

Mammalian and Insect cells culture reagents were from Life Technologies. SensorChips SA were from BiaCore AB. Glutathione Sepharose, as well as pre- packed HiTrap Q HP and Hiload Superdex 200 prep grade columns were from Amersham Biosciences. Dialysis cassettes were from the Slide-

25   A-Lyzer series (Pierce). Ni-NTA Agarose was from Qiagen. Disposable ultrafiltration devices (polyethersulfone membranes) were from Vivascience. Crystallisation research tools (primary screens, additive

screens and crystallisation plates) were from Hampton Research. Peptides were synthesised by Dr G. Blomberg (University of Bristol, UK).

General methods

Molecular biology techniques were performed using standard protocols. Site directed mutagenesis was performed using a QuickChange kit (Stratagene) following instructions provided by the manufacturer. DNA constructs used for transfection were purified from bacteria using Qiagen plasmid Mega kit according to the manufacturer's protocol, and their sequence verified. Human kidney embryonic 293 cells were cultured on 10 cm diameter dishes in Dulbecco's modified Eagle's medium containing 10% foetal bovine serum.

Buffers

Low Salt Buffer: 25mM Tris-HCl pH 7.5, 150 mM NaCl; High Salt Buffer: 25mM Tris-HCl pH 7.5, 500 mM NaCl. Lysis Buffer: 25mM Tris-HCl pH 7.5, 150 mM NaCl 0.07% β -mercaptoethanol, 1mM Benzamidine, and 20 µg/ml PMSF. Buffer A: 50 mM Tris-HCl pH 7.5, 1 mM EGTA, 1 mM EDTA, 1% (by mass) Triton-X 100, 1 mM sodium orthovanadate, 50 mM sodium fluoride, 5 mM sodium pyrophosphate, 0.27 M sucrose, 1 µM microcystin-LR, 0.1% (by vol) β -mercaptoethanol and "complete" proteinase inhibitor cocktail (one tablet per 50 ml, Roche). Buffer B: 50 mM Tris/HCl pH 7.5, 0.1 mM EGTA, 10 mM β -mercaptoethanol and 0.27 M sucrose.

Expression, purification and characterisation of the kinase domain of PDK1

A cDNA encoding for human PDK1 amino acid residues 51-359 with a stop codon inserted at position 360, was amplified by PCR reaction using full length human PDK1 cDNA in the pCMV5 vector [Alessi et al., 1997] as a template a 5'primer, which incorporates a *Ba*mH1 restriction site, an initiating methionine, a hexahistidine tag.followed by a PreScission protease recognition sequence prior to the residue equivalent to Met51 of PDK1 (ggatcctataaatatggcacatcatcatcatcatctggaagttctgttccaggggcccatggacggcact gcagccgagcctcgg) (SEQ ID NO:106) and the 3' primer applied in this reaction was: 5'-ggatcctcaggtgagcttcggaggcgtctgctggtg-3' (SEQ ID NO: 107). The resulting PCR product was ligated into pCR 2.1 TOPO vector (Invitrogen) and then subcloned as a *Ba*mH1-*Ba*mH1 fragment into pFastbac1 vector (Life Technologies) for baculovirus protein expression. The resulting construct was then used to generate recombinant baculovirus using the Bac-to-Bac system (Life Technologies) following the manufacturer's protocol. The resulting baculoviruses were used to infect Sf21 cells at 1.5 x 106/ml. The infected cells were harvested by centrifugation 72 hours post infection. Cell pellets corresponding to 7 l of culture were resuspended in 900 ml of Lysis Buffer and cells lysed in nitrogen cavitation chamber. Cell debris was then pelleted by centrifugation, the supernatant made 0.5 M NaCl by addition of 4M NaCl and then incubated with Ni-NTA-Agarose (10 ml resin) for one hour. The resin was then washed in 10 times with 40 ml of Lysis Buffer containing 0.5M NaCl and then placed in a disposable Econo-Pac column (BioRad), where the resin was further washed with 700 ml of high salt buffer and then with 100 ml of low salt buffer, both supplemented with 10 mM imidazole. Elution was performed with 200 mM imidazole in high salt buffer and 2 ml fractions were collected. Fractions containing protein were pooled, diluted to 200 mM NaCl with 25 mM Tris/HCl pH 7.5, and loaded onto a 5 ml Hi-trap Q sepharose column. The flow-through from this step, containing PDK1, was concentrated to 4 ml and then chromatographed on a 16/60

Superdex 200 gel filtration column using an AKTA Explorer system (Amersham Biosciences) equilibrated with high salt buffer with the addition of 1mM DTT. PDK1 eluted in a large symmetric peak at the expected size for a monomer. The PDK1 containing peak was again pooled, concentrated and incubated with 300 μg GST-PreScission protease (expression construct kindly provided by John Heath, University of Birmingham, UK) on ice for 4h. In order to eliminate the cleaved His-tag sequences as well as any remaining uncleaved His-PDK1 and the GST-PreScission protease, the mixture was incubated with a mixture of 200 μl glutathione-Sepharose and 200 μl Ni-NTA agarose resin for 15 minutes and the PDK1 protein that did not bind was collected. The resulting protein consists of PDK1 (51-359) preceded by a Gly-Pro at the N-terminus. The protein at this stage of the purification was apparently homogeneous as revealed by a single band after electrophoresis of 20 μg of protein on SDS-PAGE and staining with Coomasie Brilliant Blue R250 (data not shown).

Electrospray mass spectrometry revealed a main peak mass close to the expected size of this fragment of PDK1. The specific activity of PDK1 (51-359) towards the peptide T308tide and its activation in the presence of PIFtide was identical to wild type full length PDK1 [Biondi et al., 2000], and tryptic peptide mass finger printing indicated that PDK1 was quantitatively phosphorylated at Ser241 (data not shown). In BiaCore experiments, the steady state binding of PDK1 (51-359) to the peptide PIFtide was similar to that of the His-tag PDK1 (51-556) protein characterised previously [Balendran et al., 1999a].

Crystallisation and data collection

The PDK1 (51-359) protein was concentrated to a final concentration of 8.5 mg/ml (as determined by a Bradford assay using bovine serum albumin as a standard). The sitting drop vapour diffusion method was used for producing crystals. Sitting drops were formed by mixing 1 µl of protein solution with 1 µl of a mother liquor solution (0.1 M Tris/HCl pH 8.5, 2.0 M ammonium sulphate, 16.6 mM ATP) with the addition of 0.2 µl EDTA (100mM). Hexagonal crystals (Table I) of PDK1 were grown at 20° C from a mother liquor containing 0.1M Tris/HCl pH 8.5, 2.0 M ammonium sulphate, 16.6 mM ATP). Crystals appeared after one day, growing to 0.05 x 0.05 x 0.2 mm over 20 days. Crystals were frozen in a nitrogen gas stream after being soaked in 0.075 M Tris 8.5, 1.5M ammonium sulphate, 25% (v/v) glycerol.

Expression and purification of wild type and mutant forms of GST-PDK1.

Wild type-PDK1 [Alessi et al., 1997], PDK1[R76A], PDK1[R131A], PDK1[R76A,R131A], PDK1[T148A] and PDK1[Q150A] in the pEBG2T vector were used to express the wild type and indicated mutants of PDK1 fused through their N-terminus to glutathione S-transferase (GST). The GST fusion proteins were expressed in human embryonic kidney 293 cells. For the expression of each construct, twenty 10 cm diameter dishes of 293 cells were cultured and each dish transfected with 10 µg of the pEBG-2T construct, using a modified calcium phosphate method. 36 h post-transfection, the cells were lysed in 0.6 ml of ice-cold Buffer A, the lysates pooled, centrifuged at 4 ° C for 10 min at 13000 g and the GST-fusion proteins were purified by affinity chromatography on glutathione-Sepharose and eluted in Buffer B supplemented with 20 mM glutathione as described previously [Alessi et al., 1997]. Typically between 1 and 2mg of each GST-fusion protein was obtained and each protein was more than 75 judged by SDS polyacrylamide gel electrophoresis (data not shown).

PDK1 catalytic activity measurements

The ability of wild type and mutant PDK1 to phosphorylate the synthetic
peptide T308tide (KTFCGTPEYLAPEVRR ([Biondi et al., 2000]) (SEQ ID
NO:108) was carried out in 30 μl assays containing 100 ng of wild type or
mutant PDK1, 50 mM Tris/HCl pH 7.5, 0.1% β -mercaptoethanol, 10 mM
$MgCl_2$, 100 μM [32γ P]ATP (200 cpm/pmol) , 0.5 μM microcystin-LR, 1
mM T308tide in the presence or absence of the indicated concentrations of
the S6K-pHM peptide (SESANQVFLGFT(P)YVAPSV) (SEQ ID NO:104)
or S6K-HM.peptide   (SESANQVFLGFTYVAPSV) (SEQ ID NO:105).
After incubation for 10 min at 30 ° C, 25 μl of the resultant mixture was
spotted into P81 phosphocellulose paper (2 x 2 cm) and the papers washed
and analysed as described previously for assays of MAP kinase. Control
assays were carried out in parallel in which either PDK1, or peptide
substrate were omitted; these values were always less than 5% of the
activity measured in the presence of these reagents. One Unit of PDK1
activity was defined as that amount required to catalyse the phosphorylation
of 1 nmol of the T308tide in 1 min.

Biacore analysis

Binding was analysed in a BiaCore 3000 system (BiaCore AB, Stevenage,
UK). Biotinylated S6K-pHM (Biotin-C_{12}- SESANQVFLGFT(P)YVAPSV)
(SEQ ID NO:104) or the non-phosphorylated form of this peptide S6K-HM
was bound to an streptavidin- coated Sensor chip (SA) (12 response units,
RU). 30 μl of wild type or the indicated mutant GST-PDK1 were injected at
a flow rate of 30μl/min, in buffer HBS-P (10 mM HEPES pH 7.4, 0.15M

NaCl, 0.005% (by vol) polysorbate-20) supplemented with 1 mM DTT. Specific interactions between S6K-pHM and PDK1 proteins were obtained between the concentration range of 2-2150 nM PDK1. Steady state binding was determined at each concentration. Dissociation of PDK1 from the phospho-peptide was monitored over a 1min period. Regeneration of the sensor chip surface was performed with 10µl injections of 0.05% SDS. As previously found for PDK1 binding to PIFtide [Biondi et al., 2000], the interaction data obtained using BiaCore did not fit to simple 1:1 interaction model. Apparent Kd values were estimated from the concentration of PDK1 which gives 50% of maximal response, which was obtained empirically using GST- PDK1[T148A] (RUmax=435). For all PDK1 construct tested, the off rates for S6Kp-HM were high in comparison to those of PIFtide binding with the time taken for 50% dissociation to occur for S6K-pHM is 30s compared to 1000s for PIFtide. This could account for the overall approximately 100-fold lower affinity of wild type PDK1 for S6K-pHM in comparison to PIFtide.

Data collection, structure solution, and refinement

Data on PDK1 crystals were collected at the European Synchrotron Radiation Facility (Grenoble, France) beamline ID14-EH1 , using an ADSC Q4 CCD detector. The temperature of the crystals was maintained at 100K using a nitrogen cryostream. Data were processed using the HKL package [Otwinowski and Minor, 1997], statistics are shown in Table I.

The structure of PDK1 was solved by molecular replacement with AMoRe [Navaza, 1994] using the structure of PKA in complex with an inhibitory peptide as a search model (PDB entry 1YDB), against 8-4 Ådata. A single, well separated solution was found with an R-factor of 0.479 (correlation

coefficient = 0.428). The structure was automatically built using warpNtrace [Perrakis et al., 1999], which found 262 of a possible 309 residues, giving an initial protein model with R=0.293 (Rfree=0.318) after simulated annealing in CNS [Brunger et al., 1998]. Iterative protein building in O [Jones et al., 1991] together with refinement in CNS, which included incorporation of a model for ATP, the phosphoserine in the activation loop, solvent molecules and a key sulphate molecule, resulted in a final model with R=0.195 (Rfree=0.222). No electron density was observed for residues 51-70 (the N-terminus of the construct) and 233-236 (the tip of the activation loop). All figures were made with PyMOL.

Table I

Details of data collection & structure refinement for the PDK1 kinase domain. Values between brackets are for the highest resolution shell. All measured data were included in structure refinement.

Wave length ( )	0.933
Space group	$P3_2 21$
Unit cell ( )	a=123.01, b=123.01, c=47.62
Resolution ( )	25-2.0 (2.07-1.0)
Observed reflections	77315
Unique reflections	27643
Redundancy	2.8 (2.5)
Completeness(%)	98.0 (93.5)
Rmerge	0.091 (0.454)
I/ sigma I	7.3 (2.0)
R_{free} reflections	579
R_{cryst}	0.195
R_{free}	0.222

Number of groups

°°Protein residues   71-359

°°Water   200

ATP   1

SO$_4$ 5

Glycerol   8

Wilson B (^{2})   22.4

< B > Protein   25.6

< B > Water   35.7

< B > ATP   38.8

RMSD from ideal geometry

Bond lengths ( )   0.005

Bond angles ($^\circ$)   1.34

Main chain B (^{2})   1.5.

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Example 2: Co-ordinates for PDK1fragment with all alternate side chains.

```
      REMARK coordinates from restrained individual B-factor refinement
      REMARK refinement resolution: 25.0 - 2.0 A
      REMARK starting r= 0.1972 free_r= 0.2220
 5    REMARK final    r= 0.1954 free_r= 0.2224
      REMARK B rmsd for bonded mainchain atoms=  1.501  target= 1.5
      REMARK B rmsd for bonded sidechain atoms=  2.235  target= 2.0
      REMARK B rmsd for angle mainchain atoms=  2.347  target= 2.0
      REMARK B rmsd for angle sidechain atoms=  3.302  target= 2.5
10    REMARK rweight=  0.0900 (with wa= 1.29263)
      REMARK target= mlf   steps= 30
      REMARK sg= P3(2)21 a= 123.013 b= 123.013 c= 47.624 alpha= 90 beta= 90
      gamma= 120
      REMARK parameter file 1  : /dd1/david/projects/PDK1_new/CNS/prot.par
15    REMARK parameter file 2  : /dd1/david/projects/PDK1_new/CNS/atp.par
      REMARK parameter file 3  : CNS_TOPPAR:water_rep.param
      REMARK parameter file 4  : CNS_TOPPAR:ion.param
      REMARK parameter file 5  : /dd1/david/projects/PDK1_new/CNS/glycerol.par
      REMARK molecular structure file: ../generate/alternate.mtf
20    REMARK input coordinates: ../minimize/minimize.pdb
      REMARK reflection file= ../../1/hkl/cns.hkl
      REMARK ncs= none
      REMARK B-correction resolution: 6.0 - 2.0
      REMARK initial B-factor correction applied to fobs :
25    REMARK   B11= -2.766 B22=  -2.766 B33=   5.532
      REMARK   B12=  -0.375 B13=   0.000 B23=   0.000
      REMARK B-factor correction applied to coordinate array B:    0.031
      REMARK bulk solvent: density level= 0.378441 e/A^3, B-factor= 52.6885 A^2
      REMARK reflections with |Fobs|/sigma_F < 0.0 rejected
30    REMARK reflections with |Fobs| > 10000 * rms(Fobs) rejected
      REMARK theoretical total number of refl. in resol. range:    28210 ( 100.0
      % )
      REMARK number of unobserved reflections (no entry or |F|=0):    568 (   2.0
      % )
35    REMARK number of reflections rejected:                             0 (   0.0
      % )
      REMARK total number of reflections used:                      27642 (  98.0
      % )
      REMARK number of reflections in working set:                  27063 (  95.9
40    % )
      REMARK number of reflections in test set:                       579 (   2.1
      % )
      CRYST1  123.013  123.013   47.624  90.00  90.00 120.00 P 32 2 1
      REMARK FILENAME="bindividual.pdb"
45    REMARK DATE:16-Apr-2002  18:31:12       created by user: david
      REMARK VERSION:1.0
      ATOM      1  CB  PRO A  71      58.912  -7.251   8.216  1.00 67.78      A
      ATOM      2  CG  PRO A  71      59.621  -6.941   9.534  1.00 69.16      A
      ATOM      3  C   PRO A  71      59.493  -6.506   5.894  1.00 67.06      A
50    ATOM      4  O   PRO A  71      59.196  -5.318   5.766  1.00 66.66      A
      ATOM      5  N   PRO A  71      60.984  -6.073   7.833  1.00 67.86      A
      ATOM      6  CD  PRO A  71      60.554  -5.762   9.207  1.00 68.24      A
      ATOM      7  CA  PRO A  71      60.040  -7.035   7.217  1.00 67.75      A
      ATOM      8  N   PRO A  72      59.356  -7.385   4.890  1.00 66.32      A
55    ATOM      9  CD  PRO A  72      59.712  -8.816   4.898  1.00 67.17      A
      ATOM     10  CA  PRO A  72      58.840  -6.986   3.578  1.00 65.61      A
      ATOM     11  CB  PRO A  72      58.672  -8.321   2.858  1.00 66.47      A
      ATOM     12  CG  PRO A  72      59.796  -9.133   3.419  1.00 67.57      A
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      ATOM    13  C    PRO A  72    57.527   -6.208    3.673  1.00  63.94      A
      ATOM    14  O    PRO A  72    56.710   -6.451    4.561  1.00  64.11      A
      ATOM    15  N    ALA A  73    57.341   -5.268    2.753  1.00  61.57      A
      ATOM    16  CA   ALA A  73    56.133   -4.454    2.708  1.00  58.74      A
  5   ATOM    17  CB   ALA A  73    56.438   -3.030    3.165  1.00  58.05      A
      ATOM    18  C    ALA A  73    55.626   -4.448    1.271  1.00  56.78      A
      ATOM    19  O    ALA A  73    56.347   -4.834    0.349  1.00  56.95      A
      ATOM    20  N    PRO A  74    54.372   -4.024    1.057  1.00  54.15      A
      ATOM    21  CD   PRO A  74    53.335   -3.610    2.018  1.00  53.31      A
 10   ATOM    22  CA   PRO A  74    53.856   -4.003   -0.314  1.00  52.54      A
      ATOM    23  CB   PRO A  74    52.474   -3.375   -0.148  1.00  52.86      A
      ATOM    24  CG   PRO A  74    52.067   -3.824    1.226  1.00  52.88      A
      ATOM    25  C    PRO A  74    54.772   -3.167   -1.204  1.00  50.08      A
      ATOM    26  O    PRO A  74    55.559   -2.361   -0.708  1.00  49.96      A
 15   ATOM    27  N    ALA A  75    54.680   -3.366   -2.514  1.00  47.58      A
      ATOM    28  CA   ALA A  75    55.503   -2.602   -3.446  1.00  44.69      A
      ATOM    29  CB   ALA A  75    55.312   -3.121   -4.870  1.00  46.14      A
      ATOM    30  C    ALA A  75    55.100   -1.134   -3.371  1.00  41.55      A
      ATOM    31  O    ALA A  75    53.947   -0.813   -3.086  1.00  41.01      A
 20   ATOM    32  N    LYS A  76    56.053   -0.245   -3.619  1.00  38.31      A
      ATOM    33  CA   LYS A  76    55.781    1.184   -3.588  1.00  35.72      A
      ATOM    34  CB   LYS A  76    57.053    1.957   -3.930  1.00  37.70      A
      ATOM    35  CG   LYS A  76    57.123    3.356   -3.350  1.00  40.99      A
      ATOM    36  CD   LYS A  76    57.262    3.316   -1.836  1.00  40.04      A
 25   ATOM    37  CE   LYS A  76    57.511    4.705   -1.277  1.00  42.08      A
      ATOM    38  NZ   LYS A  76    57.681    4.695    0.202  1.00  42.99      A
      ATOM    39  C    LYS A  76    54.708    1.467   -4.638  1.00  32.65      A
      ATOM    40  O    LYS A  76    54.814    1.005   -5.770  1.00  31.41      A
      ATOM    41  N    LYS A  77    53.668    2.207   -4.270  1.00  28.59      A
 30   ATOM    42  CA   LYS A  77    52.619    2.517   -5.232  1.00  25.72      A
      ATOM    43  CB   LYS A  77    51.316    2.865   -4.509  1.00  26.22      A
      ATOM    44  CG   LYS A  77    50.796    1.731   -3.631  1.00  27.15      A
      ATOM    45  CD   LYS A  77    49.487    2.089   -2.967  1.00  26.80      A
      ATOM    46  CE   LYS A  77    49.136    1.091   -1.870  1.00  27.31      A
 35   ATOM    47  NZ   LYS A  77    48.998   -0.296   -2.380  1.00  27.17      A
      ATOM    48  C    LYS A  77    53.053    3.668   -6.137  1.00  24.67      A
      ATOM    49  O    LYS A  77    54.010    4.377   -5.829  1.00  21.60      A
      ATOM    50  N    ARG A  78    52.351    3.838   -7.254  1.00  23.66      A
      ATOM    51  CA   ARG A  78    52.662    4.897   -8.211  1.00  26.14      A
 40   ATOM    52  CB   ARG A  78    53.574    4.344   -9.318  1.00  28.57      A
      ATOM    53  CG   ARG A  78    53.017    3.139  -10.050  1.00  34.78      A
      ATOM    54  CD   ARG A  78    54.092    2.465  -10.896  1.00  40.96      A
      ATOM    55  NE   ARG A  78    53.560    1.364  -11.700  1.00  48.93      A
      ATOM    56  CZ   ARG A  78    52.985    0.270  -11.203  1.00  52.58      A
 45   ATOM    57  NH1  ARG A  78    52.860    0.113   -9.889  1.00  54.60      A
      ATOM    58  NH2  ARG A  78    52.530   -0.672  -12.022  1.00  54.09      A
      ATOM    59  C    ARG A  78    51.382    5.488   -8.803  1.00  23.76      A
      ATOM    60  O    ARG A  78    50.311    4.888   -8.706  1.00  24.25      A
      ATOM    61  N    PRO A  79    51.475    6.676   -9.428  1.00  21.76      A
 50   ATOM    62  CD   PRO A  79    52.691    7.475   -9.668  1.00  20.82      A
      ATOM    63  CA   PRO A  79    50.301    7.325  -10.021  1.00  21.96      A
      ATOM    64  CB   PRO A  79    50.910    8.481  -10.816  1.00  22.27      A
      ATOM    65  CG   PRO A  79    52.124    8.831  -10.014  1.00  22.12      A
      ATOM    66  C    PRO A  79    49.446    6.413  -10.903  1.00  22.86      A
 55   ATOM    67  O    PRO A  79    48.213    6.461  -10.842  1.00  20.52      A
      ATOM    68  N    GLU A  80    50.103    5.586  -11.714  1.00  21.87      A
      ATOM    69  CA   GLU A  80    49.403    4.685  -12.628  1.00  22.99      A
      ATOM    70  CB   GLU   80    50.393    3.994  -13.571  0.50  25.24    AC1
      ATOM    71  CG   GLU   80    51.230    2.907  -12.925  0.50  28.75    AC1
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        ATOM    72  CD   GLU    80 52.157   2.224 -13.913   0.50 31.99   AC1
        ATOM    73  OE1  GLU    80 53.072   2.897 -14.433   0.50 34.34   AC1
        ATOM    74  OE2  GLU    80 51.969   1.015 -14.172   0.50 32.83   AC1
        ATOM    75  C    GLU A  80   48.556   3.631 -11.912   1.00 22.09    A
   5    ATOM    76  O    GLU A  80   47.692   3.013 -12.530   1.00 22.37    A
        ATOM    77  N    ASP A  81   48.804   3.413 -10.622   1.00 19.97    A
        ATOM    78  CA   ASP A  81   48.026   2.423  -9.874   1.00 19.93    A
        ATOM    79  CB   ASP A  81   48.736   2.029  -8.571   1.00 21.19    A
        ATOM    80  CG   ASP A  81   50.089   1.380  -8.807   1.00 22.46    A
  10    ATOM    81  OD1  ASP A  81   50.195   0.554  -9.731   1.00 24.22    A
        ATOM    82  OD2  ASP A  81   51.043   1.685  -8.058   1.00 23.33          A
        ATOM    83  C    ASP A  81   46.652   2.975  -9.518   1.00 20.85          A
        ATOM    84  O    ASP A  81   45.793   2.246  -9.015   1.00 19.96          A
        ATOM    85  N    PHE A  82   46.445   4.258  -9.804   1.00 18.91          A
  15    ATOM    86  CA   PHE A  82   45.200   4.934  -9.465   1.00 19.30          A
        ATOM    87  CB   PHE A  82   45.475   6.027  -8.427   1.00 18.43          A
        ATOM    88  CG   PHE A  82   46.134   5.531  -7.175   1.00 18.01          A
        ATOM    89  CD1  PHE A  82   45.371   5.136  -6.084   1.00 17.19          A
        ATOM    90  CD2  PHE A  82   47.520   5.460  -7.086   1.00 18.99          A
  20    ATOM    91  CE1  PHE A  82   45.977   4.676  -4.918   1.00 17.12          A
        ATOM    92  CE2  PHE A  82   48.137   5.000  -5.925   1.00 19.64          A
        ATOM    93  CZ   PHE A  82   47.361   4.607  -4.838   1.00 18.00          A
        ATOM    94  C    PHE A  82   44.476   5.596 -10.621   1.00 20.81          A
        ATOM    95  O    PHE A  82   45.066   5.933 -11.649   1.00 20.34          A
  25    ATOM    96  N    LYS A  83   43.182   5.792 -10.411   1.00 19.80          A
        ATOM    97  CA   LYS A  83   42.321   6.478 -11.353   1.00 21.65          A
        ATOM    98  CB   LYS A  83   41.096   5.625 -11.687   1.00 22.02          A
        ATOM    99  CG   LYS A  83   40.062   6.326 -12.550   1.00 28.93          A
        ATOM   100  CD   LYS A  83   38.974   5.355 -12.981   1.00 34.20          A
  30    ATOM   101  CE   LYS A  83   37.909   6.042 -13.824   1.00 38.10          A
        ATOM   102  NZ   LYS A  83   37.179   7.086 -13.043   1.00 43.33          A
        ATOM   103  C    LYS A  83   41.913   7.702 -10.541   1.00 20.74          A
        ATOM   104  O    LYS A  83   41.084   7.606  -9.635   1.00 20.98          A
        ATOM   105  N    PHE A  84   42.513   8.848 -10.835   1.00 19.99          A
  35    ATOM   106  CA   PHE A  84   42.188  10.049 -10.083   1.00 18.63          A
        ATOM   107  CB   PHE A  84   43.279  11.103 -10.258   1.00 18.95          A
        ATOM   108  CG   PHE A  84   44.571  10.741  -9.587   1.00 17.68          A
        ATOM   109  CD1  PHE A  84   45.498   9.926 -10.224   1.00 18.16          A
        ATOM   110  CD2  PHE A  84   44.843  11.183  -8.299   1.00 19.66          A
  40    ATOM   111  CE1  PHE A  84   46.676   9.556  -9.589   1.00 18.09          A
        ATOM   112  CE2  PHE A  84   46.021  10.816  -7.653   1.00 18.89          A
        ATOM   113  CZ   PHE A  84   46.936  10.002  -8.301   1.00 17.33          A
        ATOM   114  C    PHE A  84   40.834  10.617 -10.460   1.00 19.69          A
        ATOM   115  O    PHE A  84   40.391  10.489 -11.601   1.00 20.72          A
  45    ATOM   116  N    GLY A  85   40.178  11.233  -9.484   1.00 16.80          A
        ATOM   117  CA   GLY A  85   38.872  11.810  -9.716   1.00 17.73          A
        ATOM   118  C    GLY A  85   38.819  13.280  -9.346   1.00 18.75          A
        ATOM   119  O    GLY A  85   39.740  14.043  -9.650   1.00 18.45          A
        ATOM   120  N    LYS A  86   37.753  13.673  -8.659   1.00 16.00          A
  50    ATOM   121  CA   LYS A  86   37.571  15.064  -8.278   1.00 18.26          A
        ATOM   122  CB   LYS A  86   36.133  15.302  -7.812   1.00 19.00          A
        ATOM   123  CG   LYS A  86   35.793  14.660  -6.481   1.00 21.55          A
        ATOM   124  CD   LYS A  86   34.368  14.981  -6.066   1.00 26.48          A
        ATOM   125  CE   LYS A  86   33.994  14.239  -4.793   1.00 31.92          A
  55    ATOM   126  NZ   LYS A  86   32.568  14.457  -4.412   1.00 35.36          A
        ATOM   127  C    LYS A  86   38.523  15.571  -7.202   1.00 18.57          A
        ATOM   128  O    LYS A  86   39.045  14.807  -6.385   1.00 16.77          A
        ATOM   129  N    ILE A  87   38.737  16.881  -7.227   1.00 17.88          A
        ATOM   130  CA   ILE A  87   39.577  17.554  -6.256   1.00 18.26          A
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	ATOM	131	CB	ILE	A	87	39.994	18.952	-6.772	1.00	19.60	A
	ATOM	132	CG2	ILE	A	87	40.593	19.786	-5.628	1.00	18.73	A
	ATOM	133	CG1	ILE	A	87	40.968	18.786	-7.945	1.00	21.16	A
	ATOM	134	CD1	ILE	A	87	41.412	20.087	-8.588	1.00	25.26	A
5	ATOM	135	C	ILE	A	87	38.731	17.709	-4.997	1.00	19.67	A
	ATOM	136	O	ILE	A	87	37.628	18.249	-5.052	1.00	20.41	A
	ATOM	137	N	LEU	A	88	39.240	17.229	-3.867	1.00	19.15	A
	ATOM	138	CA	LEU	A	88	38.508	17.324	-2.611	1.00	20.68	A
	ATOM	139	CB	LEU	A	88	38.870	16.151	-1.700	1.00	19.97	A
10	ATOM	140	CG	LEU	A	88	38.529	14.759	-2.237	1.00	19.24	A
	ATOM	141	CD1	LEU	A	88	39.090	13.692	-1.311	1.00	21.41	A
	ATOM	142	CD2	LEU	A	88	37.029	14.622	-2.359	1.00	18.84	A
	ATOM	143	C	LEU	A	88	38.815	18.632	-1.901	1.00	23.11	A
	ATOM	144	O	LEU	A	88	37.999	19.146	-1.139	1.00	25.10	A
15	ATOM	145	N	GLY	A	89	39.997	19.174	-2.149	1.00	24.09	A
	ATOM	146	CA	GLY	A	89	40.367	20.418	-1.507	1.00	24.27	A
	ATOM	147	C	GLY	A	89	41.658	20.954	-2.078	1.00	25.47	A
	ATOM	148	O	GLY	A	89	42.445	20.202	-2.666	1.00	22.19	A
	ATOM	149	N	GLU	A	90	41.870	22.254	-1.906	1.00	26.22	A
20	ATOM	150	CA	GLU	A	90	43.064	22.924	-2.404	1.00	29.96	A
	ATOM	151	CB	GLU	A	90	42.698	23.814	-3.596	1.00	30.75	A
	ATOM	152	CG	GLU	A	90	42.267	23.038	-4.831	1.00	34.32	A
	ATOM	153	CD	GLU	A	90	41.711	23.930	-5.927	1.00	38.27	A
	ATOM	154	OE1	GLU	A	90	40.590	24.456	-5.764	1.00	40.57	A
25	ATOM	155	OE2	GLU	A	90	42.398	24.110	-6.952	1.00	40.90	A
	ATOM	156	C	GLU	A	90	43.711	23.768	-1.313	1.00	30.68	A
	ATOM	157	O	GLU	A	90	43.049	24.574	-0.668	1.00	32.83	A
	ATOM	158	N	GLY	A	91	45.006	23.566	-1.104	1.00	29.66	A
	ATOM	159	CA	GLY	A	91	45.724	24.332	-0.104	1.00	29.40	A
30	ATOM	160	C	GLY	A	91	46.795	25.151	-0.798	1.00	29.98	A
	ATOM	161	O	GLY	A	91	46.894	25.130	-2.028	1.00	28.16	A
	ATOM	162	N	SER	A	92	47.605	25.870	-0.029	1.00	28.30	A
	ATOM	163	CA	SER	A	92	48.653	26.681	-0.633	1.00	30.50	A
	ATOM	164	CB	SER	A	92	49.165	27.717	0.370	1.00	32.43	A
35	ATOM	165	OG	SER	A	92	49.520	27.099	1.593	1.00	40.94	A
	ATOM	166	C	SER	A	92	49.815	25.843	-1.164	1.00	29.77	A
	ATOM	167	O	SER	A	92	50.456	26.221	-2.143	1.00	30.46	A
	ATOM	168	N	PHE	A	93	50.087	24.703	-0.536	1.00	27.65	A
	ATOM	169	CA	PHE	A	93	51.185	23.855	-0.995	1.00	26.34	A
40	ATOM	170	CB	PHE	A	93	52.281	23.785	0.068	1.00	27.95	A
	ATOM	171	CG	PHE	A	93	52.861	25.117	0.406	1.00	31.06	A
	ATOM	172	CD1	PHE	A	93	52.283	25.909	1.392	1.00	29.96	A
	ATOM	173	CD2	PHE	A	93	53.949	25.613	-0.308	1.00	31.38	A
	ATOM	174	CE1	PHE	A	93	52.779	27.181	1.665	1.00	32.69	A
45	ATOM	175	CE2	PHE	A	93	54.452	26.883	-0.044	1.00	32.63	A
	ATOM	176	CZ	PHE	A	93	53.864	27.670	0.945	1.00	31.81	A
	ATOM	177	C	PHE	A	93	50.759	22.445	-1.365	1.00	25.39	A
	ATOM	178	O	PHE	A	93	51.601	21.559	-1.522	1.00	24.59	A
	ATOM	179	N	SER	A	94	49.457	22.235	-1.519	1.00	23.63	A
50	ATOM	180	CA	SER	A	94	48.965	20.912	-1.860	1.00	21.43	A
	ATOM	181	CB	SER	A	94	49.017	20.013	-0.628	1.00	21.42	A
	ATOM	182	OG	SER	A	94	48.091	20.475	0.340	1.00	21.19	A
	ATOM	183	C	SER	A	94	47.539	20.925	-2.378	1.00	19.82	A
	ATOM	184	O	SER	A	94	46.795	21.882	-2.173	1.00	18.76	A
55	ATOM	185	N	THR	A	95	47.174	19.832	-3.038	1.00	19.38	A
	ATOM	186	CA	THR	A	95	45.840	19.637	-3.580	1.00	17.98	A
	ATOM	187	CB	THR	A	95	45.818	19.818	-5.110	1.00	19.25	A
	ATOM	188	OG1	THR	A	95	46.196	21.162	-5.434	1.00	22.04	A
	ATOM	189	CG2	THR	A	95	44.421	19.549	-5.661	1.00	17.61	A

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     ATOM   190  C    THR A  95      45.455  18.201  -3.243  1.00 18.61       A
     ATOM   191  O    THR A  95      46.212  17.264  -3.524  1.00 17.10       A
     ATOM   192  N    VAL A  96      44.295  18.024  -2.623  1.00 16.53       A
     ATOM   193  CA   VAL A  96      43.845  16.685  -2.266  1.00 16.05       A
 5   ATOM   194  CB   VAL A  96      43.170  16.672  -0.886  1.00 16.32       A
     ATOM   195  CG1  VAL A  96      42.741  15.249  -0.532  1.00 18.02       A
     ATOM   196  CG2  VAL A  96      44.145  17.206   0.168  1.00 16.69       A
     ATOM   197  C    VAL A  96      42.875  16.207  -3.335  1.00 16.42       A
     ATOM   198  O    VAL A  96      41.906  16.892  -3.665  1.00 16.47       A
10   ATOM   199  N    VAL A  97      43.157  15.033  -3.888  1.00 16.80       A
     ATOM   200  CA   VAL A  97      42.338  14.471  -4.949  1.00 16.72       A
     ATOM   201  CB   VAL A  97      43.153  14.354  -6.255  1.00 18.43       A
     ATOM   202  CG1  VAL A  97      42.249  13.927  -7.404  1.00 19.69       A
     ATOM   203  CG2  VAL A  97      43.831  15.685  -6.569  1.00 17.84       A
15   ATOM   204  C    VAL A  97      41.812  13.091  -4.583  1.00 16.77       A
     ATOM   205  O    VAL A  97      42.532  12.270  -4.014  1.00 17.13       A
     ATOM   206  N    LEU A  98      40.545  12.845  -4.895  1.00 16.62       A
     ATOM   207  CA   LEU A  98      39.947  11.548  -4.624  1.00 17.04       A
     ATOM   208  CB   LEU A  98      38.424  11.633  -4.743  1.00 16.89       A
20   ATOM   209  CG   LEU A  98      37.635  10.342  -4.508  1.00 19.46       A
     ATOM   210  CD1  LEU A  98      37.990   9.762  -3.146  1.00 20.07       A
     ATOM   211  CD2  LEU A  98      36.143  10.627  -4.588  1.00 17.93       A
     ATOM   212  C    LEU A  98      40.512  10.597  -5.677  1.00 17.38       A
     ATOM   213  O    LEU A  98      40.527  10.920  -6.863  1.00 18.60       A
25   ATOM   214  N    ALA A  99      40.995   9.438  -5.246  1.00 17.13       A
     ATOM   215  CA   ALA A  99      41.570   8.466  -6.168  1.00 18.42       A
     ATOM   216  CB   ALA A  99      43.090   8.524  -6.105  1.00 14.76       A
     ATOM   217  C    ALA A  99      41.102   7.055  -5.848  1.00 21.40       A
     ATOM   218  O    ALA A  99      40.941   6.691  -4.679  1.00 22.52       A
30   ATOM   219  N    ARG A 100      40.878   6.261  -6.888  1.00 19.77       A
     ATOM   220  CA   ARG A 100      40.459   4.884  -6.693  1.00 20.85       A
     ATOM   221  CB   ARG A 100      39.202   4.585  -7.518  1.00 24.22       A
     ATOM   222  CG   ARG A 100      38.608   3.205  -7.256  1.00 31.78       A
     ATOM   223  CD   ARG A 100      37.326   2.979  -8.048  1.00 36.24       A
35   ATOM   224  NE   ARG A 100      36.213   3.818  -7.594  1.00 41.40       A
     ATOM   225  CZ   ARG A 100      35.566   3.662  -6.439  1.00 42.05       A
     ATOM   226  NH1  ARG A 100      35.912   2.696  -5.598  1.00 40.67       A
     ATOM   227  NH2  ARG A 100      34.559   4.468  -6.128  1.00 43.65       A
     ATOM   228  C    ARG A 100      41.613   3.985  -7.129  1.00 18.63       A
40   ATOM   229  O    ARG A 100      42.078   4.065  -8.271  1.00 19.49       A
     ATOM   230  N    GLU A 101      42.102   3.157  -6.212  1.00 16.43       A
     ATOM   231  CA   GLU A 101      43.196   2.246  -6.533  1.00 16.11       A
     ATOM   232  CB   GLU A 101      43.774   1.637  -5.248  1.00 16.79       A
     ATOM   233  CG   GLU A 101      44.917   0.657  -5.488  1.00 16.51       A
45   ATOM   234  CD   GLU A 101      45.501   0.115  -4.200  1.00 18.20       A
     ATOM   235  OE1  GLU A 101      44.733  -0.081  -3.239  1.00 18.32       A
     ATOM   236  OE2  GLU A 101      46.725  -0.132  -4.150  1.00 17.14       A
     ATOM   237  C    GLU A 101      42.625   1.152  -7.442  1.00 17.92       A
     ATOM   238  O    GLU A 101      41.681   0.462  -7.069  1.00 18.02       A
50   ATOM   239  N    LEU A 102      43.198   1.002  -8.632  1.00 19.06       A
     ATOM   240  CA   LEU A 102      42.718   0.025  -9.607  1.00 20.71       A
     ATOM   241  CB   LEU A 102      43.569   0.097 -10.878  1.00 23.42       A
     ATOM   242  CG   LEU A 102      43.531   1.426 -11.642  1.00 25.30       A
     ATOM   243  CD1  LEU A 102      44.577   1.414 -12.748  1.00 27.88       A
55   ATOM   244  CD2  LEU A 102      42.140   1.647 -12.214  1.00 26.79       A
     ATOM   245  C    LEU A 102      42.671  -1.418  -9.125  1.00 21.62       A
     ATOM   246  O    LEU A 102      41.668  -2.103  -9.305  1.00 21.09       A
     ATOM   247  N    ALA A 103      43.753  -1.874  -8.507  1.00 19.38       A
     ATOM   248  CA   ALA A 103      43.836  -3.249  -8.035  1.00 20.87       A
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	ATOM	249	CB	ALA A 103	45.284	-3.571	-7.671	1.00	19.23	A
	ATOM	250	C	ALA A 103	42.919	-3.629	-6.872	1.00	19.92	A
	ATOM	251	O	ALA A 103	42.703	-4.815	-6.628	1.00	20.38	A
	ATOM	252	N	THR A 104	42.361	-2.643	-6.175	1.00	18.12	A
5	ATOM	253	CA	THR A 104	41.517	-2.927	-5.018	1.00	17.15	A
	ATOM	254	CB	THR A 104	42.212	-2.484	-3.717	1.00	19.54	A
	ATOM	255	OG1	THR A 104	42.456	-1.070	-3.773	1.00	19.26	A
	ATOM	256	CG2	THR A 104	43.536	-3.219	-3.529	1.00	17.02	A
	ATOM	257	C	THR A 104	40.159	-2.247	-5.026	1.00	19.44	A
10	ATOM	258	O	THR A 104	39.259	-2.648	-4.285	1.00	18.70	A
	ATOM	259	N	SER A 105	40.034	-1.207	-5.847	1.00	19.65	A
	ATOM	260	CA	SER A 105	38.819	-0.400	-5.967	1.00	19.37	A
	ATOM	261	CB	SER 105	37.598	-1.304	-6.173	0.50	21.81	AC1
	ATOM	262	OG	SER 105	36.431	-0.539	-6.412	0.50	23.01	AC1
15	ATOM	263	C	SER A 105	38.644	0.447	-4.701	1.00	18.99	A
	ATOM	264	O	SER A 105	37.602	1.070	-4.488	1.00	18.66	A
	ATOM	265	N	ARG A 106	39.674	0.468	-3.861	1.00	16.84	A
	ATOM	266	CA	ARG A 106	39.655	1.267	-2.634	1.00	16.21	A
	ATOM	267	CB	ARG A 106	40.827	0.886	-1.723	1.00	16.41	A
20	ATOM	268	CG	ARG A 106	40.619	-0.367	-0.906	1.00	15.49	A
	ATOM	269	CD	ARG A 106	41.887	-0.755	-0.170	1.00	17.43	A
	ATOM	270	NE	ARG A 106	41.620	-1.792	0.824	1.00	20.47	A
	ATOM	271	CZ	ARG A 106	42.548	-2.568	1.371	1.00	20.24	A
	ATOM	272	NH1	ARG A 106	43.821	-2.433	1.017	1.00	17.80	A
25	ATOM	273	NH2	ARG A 106	42.198	-3.468	2.285	1.00	20.14	A
	ATOM	274	C	ARG A 106	39.785	2.746	-2.981	1.00	17.37	A
	ATOM	275	O	ARG A 106	40.514	3.103	-3.902	1.00	17.75	A
	ATOM	276	N	GLU A 107	39.085	3.599	-2.240	1.00	16.06	A
	ATOM	277	CA	GLU A 107	39.156	5.039	-2.461	1.00	20.80	A
30	ATOM	278	CB	GLU A 107	37.779	5.694	-2.337	1.00	22.93	A
	ATOM	279	CG	GLU A 107	36.711	5.171	-3.269	1.00	30.87	A
	ATOM	280	CD	GLU A 107	35.431	5.975	-3.148	1.00	32.40	A
	ATOM	281	OE1	GLU A 107	35.262	6.939	-3.923	1.00	33.74	A
	ATOM	282	OE2	GLU A 107	34.608	5.654	-2.263	1.00	36.00	A
35	ATOM	283	C	GLU A 107	40.053	5.678	-1.410	1.00	18.93	A
	ATOM	284	O	GLU A 107	39.891	5.427	-0.220	1.00	19.21	A
	ATOM	285	N	TYR A 108	40.988	6.507	-1.852	1.00	16.70	A
	ATOM	286	CA	TYR A 108	41.883	7.209	-0.942	1.00	15.86	A
	ATOM	287	CB	TYR A 108	43.325	6.728	-1.104	1.00	15.30	A
40	ATOM	288	CG	TYR A 108	43.593	5.328	-0.612	1.00	16.33	A
	ATOM	289	CD1	TYR A 108	43.765	5.066	0.746	1.00	16.36	A
	ATOM	290	CE1	TYR A 108	44.046	3.769	1.201	1.00	18.48	A
	ATOM	291	CD2	TYR A 108	43.701	4.268	-1.511	1.00	13.25	A
	ATOM	292	CE2	TYR A 108	43.980	2.981	-1.075	1.00	17.28	A
45	ATOM	293	CZ	TYR A 108	44.152	2.736	0.276	1.00	19.17	A
	ATOM	294	OH	TYR A 108	44.440	1.461	0.688	1.00	19.38	A
	ATOM	295	C	TYR A 108	41.850	8.687	-1.292	1.00	16.80	A
	ATOM	296	O	TYR A 108	41.560	9.058	-2.431	1.00	15.22	A
	ATOM	297	N	ALA A 109	42.132	9.528	-0.306	1.00	14.61	A
50	ATOM	298	CA	ALA A 109	42.207	10.957	-0.539	1.00	14.30	A
	ATOM	299	CB	ALA A 109	41.671	11.726	0.661	1.00	14.78	A
	ATOM	300	C	ALA A 109	43.713	11.136	-0.667	1.00	16.79	A
	ATOM	301	O	ALA A 109	44.450	10.983	0.317	1.00	16.52	A
	ATOM	302	N	ILE A 110	44.182	11.410	-1.881	1.00	14.80	A
55	ATOM	303	CA	ILE A 110	45.609	11.574	-2.093	1.00	15.80	A
	ATOM	304	CB	ILE A 110	46.065	10.863	-3.396	1.00	16.85	A
	ATOM	305	CG2	ILE A 110	47.550	11.098	-3.632	1.00	16.80	A
	ATOM	306	CG1	ILE A 110	45.774	9.358	-3.284	1.00	17.76	A
	ATOM	307	CD1	ILE A 110	46.308	8.513	-4.437	1.00	16.07	A

	ATOM	308	C	ILE	A	110	46.004	13.045	-2.129	1.00	17.78	A
	ATOM	309	O	ILE	A	110	45.534	13.813	-2.976	1.00	16.24	A
	ATOM	310	N	LYS	A	111	46.846	13.435	-1.177	1.00	16.15	A
	ATOM	311	CA	LYS	A	111	47.326	14.808	-1.100	1.00	17.20	A
5	ATOM	312	CB	LYS	A	111	47.700	15.176	0.344	1.00	17.41	A
	ATOM	313	CG	LYS	A	111	48.350	16.547	0.464	1.00	20.71	A
	ATOM	314	CD	LYS	A	111	48.585	16.971	1.910	1.00	24.25	A
	ATOM	315	CE	LYS	A	111	47.288	17.381	2.598	1.00	29.46	A
	ATOM	316	NZ	LYS	A	111	47.516	17.866	4.000	1.00	30.50	A
10	ATOM	317	C	LYS	A	111	48.551	14.890	-1.994	1.00	16.41	A
	ATOM	318	O	LYS	A	111	49.509	14.137	-1.813	1.00	18.20	A
	ATOM	319	N	ILE	A	112	48.509	15.798	-2.963	1.00	15.87	A
	ATOM	320	CA	ILE	A	112	49.606	15.967	-3.907	1.00	17.28	A
	ATOM	321	CB	ILE	A	112	49.079	15.911	-5.358	1.00	16.43	A
15	ATOM	322	CG2	ILE	A	112	50.235	15.998	-6.341	1.00	15.12	A
	ATOM	323	CG1	ILE	A	112	48.293	14.609	-5.565	1.00	16.82	A
	ATOM	324	CD1	ILE	A	112	47.580	14.511	-6.904	1.00	18.47	A
	ATOM	325	C	ILE	A	112	50.307	17.301	-3.663	1.00	19.03	A
	ATOM	326	O	ILE	A	112	49.669	18.350	-3.635	1.00	19.15	A
20	ATOM	327	N	LEU	A	113	51.622	17.245	-3.472	1.00	20.22	A
	ATOM	328	CA	LEU	A	113	52.416	18.442	-3.214	1.00	22.36	A
	ATOM	329	CB	LEU	A	113	52.995	18.397	-1.794	1.00	22.13	A
	ATOM	330	CG	LEU	A	113	52.042	18.063	-0.646	1.00	22.46	A
	ATOM	331	CD1	LEU	A	113	51.866	16.557	-0.553	1.00	23.81	A
25	ATOM	332	CD2	LEU	A	113	52.603	18.595	0.660	1.00	23.68	A
	ATOM	333	C	LEU	A	113	53.560	18.547	-4.215	1.00	23.37	A
	ATOM	334	O	LEU	A	113	54.300	17.586	-4.424	1.00	23.11	A
	ATOM	335	N	GLU	A	114	53.706	19.714	-4.834	1.00	23.88	A
	ATOM	336	CA	GLU	A	114	54.771	19.920	-5.806	1.00	26.00	A
30	ATOM	337	CB	GLU	A	114	54.435	21.111	-6.706	1.00	27.74	A
	ATOM	338	CG	GLU	A	114	55.533	21.452	-7.696	1.00	35.07	A
	ATOM	339	CD	GLU	A	114	55.220	22.696	-8.497	1.00	39.24	A
	ATOM	340	OE1	GLU	A	114	54.808	23.703	-7.885	1.00	41.45	A
	ATOM	341	OE2	GLU	A	114	55.395	22.670	-9.736	1.00	44.05	A
35	ATOM	342	C	GLU	A	114	56.087	20.163	-5.067	1.00	24.37	A
	ATOM	343	O	GLU	A	114	56.186	21.071	-4.238	1.00	24.43	A
	ATOM	344	N	LYS	A	115	57.096	19.350	-5.360	1.00	24.10	A
	ATOM	345	CA	LYS	A	115	58.376	19.493	-4.678	1.00	24.93	A
	ATOM	346	CB	LYS	A	115	59.339	18.373	-5.103	1.00	23.72	A
40	ATOM	347	CG	LYS	A	115	59.139	17.080	-4.308	1.00	23.09	A
	ATOM	348	CD	LYS	A	115	60.064	15.944	-4.743	1.00	21.92	A
	ATOM	349	CE	LYS	A	115	59.691	15.400	-6.117	1.00	22.42	A
	ATOM	350	NZ	LYS	A	115	60.447	14.150	-6.448	1.00	19.71	A
	ATOM	351	C	LYS	A	115	59.031	20.858	-4.868	1.00	26.87	A
45	ATOM	352	O	LYS	A	115	59.492	21.469	-3.903	1.00	26.17	A
	ATOM	353	N	ARG	A	116	59.058	21.348	-6.102	1.00	28.73	A
	ATOM	354	CA	ARG	A	116	59.678	22.638	-6.380	1.00	29.66	A
	ATOM	355	CB	ARG		116	59.533	22.980	-7.868	0.50	31.29	AC1
	ATOM	356	CG	ARG		116	60.047	24.361	-8.267	0.50	33.19	AC1
50	ATOM	357	CD	ARG		116	61.368	24.710	-7.590	0.50	35.13	AC1
	ATOM	358	NE	ARG		116	62.329	23.612	-7.618	0.50	36.42	AC1
	ATOM	359	CZ	ARG		116	63.510	23.648	-7.009	0.50	36.18	AC1
	ATOM	360	NH1	ARG		116	63.871	24.729	-6.332	0.50	36.12	AC1
	ATOM	361	NH2	ARG		116	64.324	22.602	-7.067	0.50	35.77	AC1
55	ATOM	362	C	ARG	A	116	59.097	23.761	-5.519	1.00	29.70	A
	ATOM	363	O	ARG	A	116	59.843	24.515	-4.889	1.00	29.16	A
	ATOM	364	N	HIS	A	117	57.773	23.862	-5.472	1.00	27.22	A
	ATOM	365	CA	HIS	A	117	57.126	24.903	-4.681	1.00	26.33	A
	ATOM	366	CB	HIS	A	117	55.606	24.835	-4.848	1.00	28.41	A

	ATOM	367	CG	HIS A 117	54.881	26.005	-4.258	1.00	31.82	A
	ATOM	368	CD2	HIS A 117	55.309	27.249	-3.935	1.00	33.19	A
	ATOM	369	ND1	HIS A 117	53.536	25.974	-3.961	1.00	34.30	A
	ATOM	370	CE1	HIS A 117	53.165	27.148	-3.480	1.00	34.58	A
5	ATOM	371	NE2	HIS A 117	54.222	27.940	-3.455	1.00	35.18	A
	ATOM	372	C	HIS A 117	57.477	24.780	-3.202	1.00	26.22	A
	ATOM	373	O	HIS A 117	57.737	25.776	-2.534	1.00	25.67	A
	ATOM	374	N	ILE A 118	57.469	23.554	-2.689	1.00	24.94	A
	ATOM	375	CA	ILE A 118	57.792	23.315	-1.285	1.00	23.94	A
10	ATOM	376	CB	ILE A 118	57.711	21.812	-0.952	1.00	23.50	A
	ATOM	377	CG2	ILE A 118	58.374	21.533	0.389	1.00	23.76	A
	ATOM	378	CG1	ILE A 118	56.246	21.362	-0.959	1.00	24.42	A
	ATOM	379	CD1	ILE A 118	56.066	19.858	-0.834	1.00	28.06	A
	ATOM	380	C	ILE A 118	59.195	23.821	-0.958	1.00	23.78	A
15	ATOM	381	O	ILE A 118	59.402	24.495	0.048	1.00	23.49	A
	ATOM	382	N	ILE A 119	60.153	23.489	-1.815	1.00	23.46	A
	ATOM	383	CA	ILE A 119	61.534	23.913	-1.619	1.00	25.13	A
	ATOM	384	CB	ILE A 119	62.467	23.250	-2.664	1.00	24.25	A
	ATOM	385	CG2	ILE A 119	63.858	23.890	-2.617	1.00	22.47	A
20	ATOM	386	CG1	ILE A 119	62.540	21.738	-2.395	1.00	25.05	A
	ATOM	387	CD1	ILE A 119	63.327	20.945	-3.439	1.00	24.62	A
	ATOM	388	C	ILE A 119	61.667	25.435	-1.705	1.00	25.96	A
	ATOM	389	O	ILE A 119	62.330	26.051	-0.872	1.00	24.78	A
	ATOM	390	N	LYS A 120	61.028	26.039	-2.704	1.00	27.67	A
25	ATOM	391	CA	LYS A 120	61.100	27.489	-2.879	1.00	30.29	A
	ATOM	392	CB	LYS A 120	60.242	27.940	-4.060	1.00	32.34	A
	ATOM	393	CG	LYS A 120	60.674	27.407	-5.409	1.00	39.30	A
	ATOM	394	CD	LYS A 120	59.765	27.950	-6.512	1.00	45.19	A
	ATOM	395	CE	LYS A 120	58.294	27.636	-6.218	1.00	46.48	A
30	ATOM	396	NZ	LYS A 120	57.363	28.155	-7.252	1.00	46.49	A
	ATOM	397	C	LYS A 120	60.647	28.247	-1.638	1.00	30.89	A
	ATOM	398	O	LYS A 120	61.303	29.198	-1.217	1.00	32.48	A
	ATOM	399	N	GLU A 121	59.527	27.825	-1.055	1.00	29.82	A
	ATOM	400	CA	GLU A 121	58.986	28.488	0.128	1.00	30.33	A
35	ATOM	401	CB	GLU A 121	57.455	28.416	0.117	1.00	33.04	A
	ATOM	402	CG	GLU A 121	56.794	29.021	-1.120	1.00	36.45	A
	ATOM	403	CD	GLU A 121	57.221	30.456	-1.373	1.00	39.88	A
	ATOM	404	OE1	GLU A 121	57.200	31.264	-0.420	1.00	40.53	A
	ATOM	405	OE2	GLU A 121	57.573	30.778	-2.529	1.00	43.24	A
40	ATOM	406	C	GLU A 121	59.511	27.930	1.451	1.00	30.37	A
	ATOM	407	O	GLU A 121	58.946	28.204	2.513	1.00	31.24	A
	ATOM	408	N	ASN A 122	60.588	27.151	1.390	1.00	29.03	A
	ATOM	409	CA	ASN A 122	61.183	26.573	2.594	1.00	28.46	A
	ATOM	410	CB	ASN A 122	61.836	27.673	3.436	1.00	31.28	A
45	ATOM	411	CG	ASN A 122	62.945	28.395	2.698	1.00	34.12	A
	ATOM	412	OD1	ASN A 122	62.697	29.143	1.754	1.00	35.57	A
	ATOM	413	ND2	ASN A 122	64.181	28.169	3.127	1.00	35.73	A
	ATOM	414	C	ASN A 122	60.157	25.835	3.456	1.00	26.89	A
	ATOM	415	O	ASN A 122	60.085	26.055	4.663	1.00	27.23	A
50	ATOM	416	N	LYS A 123	59.375	24.955	2.842	1.00	23.99	A
	ATOM	417	CA	LYS A 123	58.358	24.210	3.574	1.00	22.43	A
	ATOM	418	CB	LYS A 123	57.031	24.248	2.810	1.00	21.97	A
	ATOM	419	CG	LYS A 123	56.475	25.645	2.599	1.00	25.68	A
	ATOM	420	CD	LYS A 123	56.253	26.354	3.927	1.00	27.54	A
55	ATOM	421	CE	LYS A 123	55.822	27.796	3.716	1.00	31.30	A
	ATOM	422	NZ	LYS A 123	55.756	28.540	5.004	1.00	33.21	A
	ATOM	423	C	LYS A 123	58.748	22.759	3.821	1.00	22.20	A
	ATOM	424	O	LYS A 123	57.924	21.960	4.264	1.00	22.50	A
	ATOM	425	N	VAL A 124	59.997	22.412	3.535	1.00	20.59	A

	ATOM	426	CA	VAL A 124	60.439	21.039	3.730	1.00	20.25	A
	ATOM	427	CB	VAL A 124	61.922	20.850	3.328	1.00	19.43	A
	ATOM	428	CG1	VAL A 124	62.346	19.407	3.573	1.00	18.69	A
	ATOM	429	CG2	VAL A 124	62.104	21.195	1.853	1.00	18.21	A
5	ATOM	430	C	VAL A 124	60.236	20.561	5.163	1.00	19.53	A
	ATOM	431	O	VAL A 124	59.841	19.418	5.385	1.00	20.02	A
	ATOM	432	N	PRO A 125	60.513	21.422	6.159	1.00	20.01	A
	ATOM	433	CD	PRO A 125	61.178	22.738	6.118	1.00	18.69	A
	ATOM	434	CA	PRO A 125	60.318	20.979	7.544	1.00	19.88	A
10	ATOM	435	CB	PRO A 125	60.793	22.180	8.363	1.00	19.95	A
	ATOM	436	CG	PRO A 125	61.839	22.805	7.479	1.00	18.85	A
	ATOM	437	C	PRO A 125	58.848	20.642	7.824	1.00	19.76	A
	ATOM	438	O	PRO A 125	58.544	19.700	8.550	1.00	16.99	A
	ATOM	439	N	TYR A 126	57.947	21.418	7.235	1.00	18.98	A
15	ATOM	440	CA	TYR A 126	56.516	21.220	7.435	1.00	21.97	A
	ATOM	441	CB	TYR A 126	55.752	22.448	6.933	1.00	25.17	A
	ATOM	442	CG	TYR A 126	56.040	23.690	7.748	1.00	30.98	A
	ATOM	443	CD1	TYR A 126	55.438	23.886	8.991	1.00	33.95	A
	ATOM	444	CE1	TYR A 126	55.721	25.015	9.763	1.00	36.60	A
20	ATOM	445	CD2	TYR A 126	56.938	24.657	7.292	1.00	35.43	A
	ATOM	446	CE2	TYR A 126	57.231	25.792	8.058	1.00	37.20	A
	ATOM	447	CZ	TYR A 126	56.618	25.962	9.291	1.00	37.40	A
	ATOM	448	OH	TYR A 126	56.903	27.073	10.052	1.00	40.85	A
	ATOM	449	C	TYR A 126	55.990	19.956	6.762	1.00	21.35	A
25	ATOM	450	O	TYR A 126	55.265	19.175	7.383	1.00	20.49	A
	ATOM	451	N	VAL A 127	56.354	19.746	5.501	1.00	18.16	A
	ATOM	452	CA	VAL A 127	55.892	18.562	4.790	1.00	17.58	A
	ATOM	453	CB	VAL A 127	56.308	18.596	3.308	1.00	17.45	A
	ATOM	454	CG1	VAL A 127	55.786	17.350	2.600	1.00	17.97	A
30	ATOM	455	CG2	VAL A 127	55.751	19.850	2.641	1.00	14.90	A
	ATOM	456	C	VAL A 127	56.459	17.306	5.448	1.00	18.39	A
	ATOM	457	O	VAL A 127	55.769	16.298	5.583	1.00	18.14	A
	ATOM	458	N	THR A 128	57.716	17.381	5.869	1.00	17.50	A
	ATOM	459	CA	THR A 128	58.375	16.260	6.530	1.00	18.54	A
35	ATOM	460	CB	THR A 128	59.861	16.586	6.805	1.00	18.01	A
	ATOM	461	OG1	THR A 128	60.537	16.804	5.559	1.00	21.14	A
	ATOM	462	CG2	THR A 128	60.536	15.446	7.545	1.00	17.95	A
	ATOM	463	C	THR A 128	57.676	15.941	7.856	1.00	19.49	A
	ATOM	464	O	THR A 128	57.438	14.776	8.179	1.00	18.76	A
40	ATOM	465	N	ARG A 129	57.345	16.981	8.619	1.00	19.60	A
	ATOM	466	CA	ARG A 129	56.673	16.804	9.904	1.00	20.12	A
	ATOM	467	CB	ARG A 129	56.534	18.144	10.621	1.00	21.33	A
	ATOM	468	CG	ARG A 129	55.948	18.029	12.023	1.00	28.02	A
	ATOM	469	CD	ARG A 129	55.721	19.404	12.597	1.00	31.25	A
45	ATOM	470	NE	ARG A 129	56.940	20.205	12.560	1.00	37.78	A
	ATOM	471	CZ	ARG A 129	56.962	21.524	12.391	1.00	40.10	A
	ATOM	472	NH1	ARG A 129	55.828	22.197	12.239	1.00	40.03	A
	ATOM	473	NH2	ARG A 129	58.119	22.170	12.374	1.00	44.58	A
	ATOM	474	C	ARG A 129	55.288	16.186	9.729	1.00	20.08	A
50	ATOM	475	O	ARG A 129	54.891	15.305	10.496	1.00	20.40	A
	ATOM	476	N	GLU A 130	54.553	16.654	8.724	1.00	18.79	A
	ATOM	477	CA	GLU A 130	53.222	16.125	8.454	1.00	20.10	A
	ATOM	478	CB	GLU A 130	52.638	16.749	7.183	1.00	19.92	A
	ATOM	479	CG	GLU A 130	51.350	16.087	6.708	1.00	27.85	A
55	ATOM	480	CD	GLU A 130	50.581	16.933	5.707	1.00	29.72	A
	ATOM	481	OE1	GLU A 130	51.216	17.528	4.814	1.00	33.46	A
	ATOM	482	OE2	GLU A 130	49.339	16.996	5.807	1.00	30.74	A
	ATOM	483	C	GLU A 130	53.301	14.615	8.295	1.00	19.81	A
	ATOM	484	O	GLU A 130	52.553	13.875	8.935	1.00	18.37	A

	ATOM	485	N	ARG	A	131	54.219	14.162	7.447	1.00 20.41	A
	ATOM	486	CA	ARG	A	131	54.397	12.735	7.202	1.00 22.45	A
	ATOM	487	CB	ARG	A	131	55.442	12.511	6.098	1.00 25.16	A
	ATOM	488	CG	ARG	A	131	55.742	11.043	5.840	1.00 28.75	A
5	ATOM	489	CD	ARG	A	131	56.736	10.837	4.708	1.00 33.75	A
	ATOM	490	NE	ARG	A	131	57.020	9.415	4.520	1.00 40.07	A
	ATOM	491	CZ	ARG	A	131	57.756	8.915	3.532	1.00 43.07	A
	ATOM	492	NH1	ARG	A	131	58.293	9.721	2.625	1.00 44.91	A
	ATOM	493	NH2	ARG	A	131	57.955	7.606	3.449	1.00 44.45	A
10	ATOM	494	C	ARG	A	131	54.820	11.982	8.466	1.00 23.24	A
	ATOM	495	O	ARG	A	131	54.241	10.948	8.804	1.00 23.86	A
	ATOM	496	N	ASP	A	132	55.831	12.497	9.160	1.00 21.99	A
	ATOM	497	CA	ASP	A	132	56.318	11.850	10.370	1.00 22.04	A
	ATOM	498	CB	ASP	A	132	57.570	12.564	10.888	1.00 23.72	A
15	ATOM	499	CG	ASP	A	132	58.750	12.442	9.932	1.00 27.77	A
	ATOM	500	OD1	ASP	A	132	58.681	11.620	8.989	1.00 27.34	A
	ATOM	501	OD2	ASP	A	132	59.753	13.163	10.128	1.00 28.70	A
	ATOM	502	C	ASP	A	132	55.258	11.772	11.474	1.00 21.69	A
	ATOM	503	O	ASP	A	132	55.077	10.723	12.092	1.00 22.75	A
20	ATOM	504	N	VAL	A	133	54.551	12.868	11.725	1.00 19.54	A
	ATOM	505	CA	VAL	A	133	53.525	12.843	12.759	1.00 18.52	A
	ATOM	506	CB	VAL	A	133	52.908	14.244	12.990	1.00 19.26	A
	ATOM	507	CG1	VAL	A	133	51.708	14.135	13.918	1.00 18.79	A
	ATOM	508	CG2	VAL	A	133	53.953	15.180	13.604	1.00 18.80	A
25	ATOM	509	C	VAL	A	133	52.419	11.854	12.398	1.00 19.46	A
	ATOM	510	O	VAL	A	133	52.073	10.991	13.200	1.00 19.94	A
	ATOM	511	N	MET	A	134	51.878	11.957	11.187	1.00 19.15	A
	ATOM	512	CA	MET	A	134	50.807	11.052	10.792	1.00 21.25	A
	ATOM	513	CB	MET	A	134	50.309	11.381	9.383	1.00 17.34	A
30	ATOM	514	CG	MET	A	134	49.615	12.730	9.302	1.00 20.00	A
	ATOM	515	SD	MET	A	134	48.643	12.952	7.798	1.00 24.21	A
	ATOM	516	CE	MET	A	134	47.033	12.434	8.400	1.00 23.20	A
	ATOM	517	C	MET	A	134	51.203	9.582	10.881	1.00 22.43	A
	ATOM	518	O	MET	A	134	50.384	8.741	11.249	1.00 23.82	A
35	ATOM	519	N	SER	A	135	52.454	9.273	10.556	1.00 23.09	A
	ATOM	520	CA	SER	A	135	52.939	7.895	10.615	1.00 26.13	A
	ATOM	521	CB	SER	A	135	54.356	7.798	10.039	1.00 26.17	A
	ATOM	522	OG	SER	A	135	54.383	8.177	8.673	1.00 31.91	A
	ATOM	523	C	SER	A	135	52.957	7.358	12.045	1.00 26.58	A
40	ATOM	524	O	SER	A	135	52.926	6.148	12.261	1.00 26.42	A
	ATOM	525	N	ARG	A	136	53.014	8.261	13.018	1.00 25.65	A
	ATOM	526	CA	ARG	A	136	53.056	7.870	14.425	1.00 27.47	A
	ATOM	527	CB	ARG	A	136	53.823	8.914	15.238	1.00 27.97	A
	ATOM	528	CG	ARG	A	136	55.283	9.082	14.857	1.00 32.00	A
45	ATOM	529	CD	ARG	A	136	55.904	10.218	15.664	1.00 33.03	A
	ATOM	530	NE	ARG	A	136	55.602	10.073	17.084	1.00 36.11	A
	ATOM	531	CZ	ARG	A	136	55.867	10.990	18.007	1.00 39.74	A
	ATOM	532	NH1	ARG	A	136	56.449	12.132	17.661	1.00 40.55	A
	ATOM	533	NH2	ARG	A	136	55.540	10.769	19.276	1.00 36.72	A
50	ATOM	534	C	ARG	A	136	51.667	7.709	15.036	1.00 26.38	A
	ATOM	535	O	ARG	A	136	51.516	7.121	16.106	1.00 27.06	A
	ATOM	536	N	LEU	A	137	50.655	8.235	14.360	1.00 24.77	A
	ATOM	537	CA	LEU	A	137	49.294	8.162	14.870	1.00 24.70	A
	ATOM	538	CB	LEU	A	137	48.483	9.363	14.371	1.00 24.52	A
55	ATOM	539	CG	LEU	A	137	49.050	10.760	14.662	1.00 26.67	A
	ATOM	540	CD1	LEU	A	137	48.075	11.813	14.141	1.00 27.25	A
	ATOM	541	CD2	LEU	A	137	49.279	10.945	16.155	1.00 27.09	A
	ATOM	542	C	LEU	A	137	48.592	6.868	14.473	1.00 25.20	A
	ATOM	543	O	LEU	A	137	48.619	6.469	13.309	1.00 25.99	A

	ATOM	544	N	ASP	A	138	47.971	6.218	15.451	1.00	21.89	A
	ATOM	545	CA	ASP	A	138	47.239	4.977	15.219	1.00	21.35	A
	ATOM	546	CB	ASP	A	138	48.124	3.761	15.523	1.00	22.14	A
	ATOM	547	CG	ASP	A	138	47.432	2.448	15.201	1.00	24.90	A
5	ATOM	548	OD1	ASP	A	138	46.631	2.423	14.241	1.00	24.78	A
	ATOM	549	OD2	ASP	A	138	47.691	1.443	15.897	1.00	25.39	A
	ATOM	550	C	ASP	A	138	46.031	4.991	16.138	1.00	20.47	A
	ATOM	551	O	ASP	A	138	45.967	4.248	17.118	1.00	19.06	A
	ATOM	552	N	HIS	A	139	45.075	5.852	15.810	1.00	18.27	A
10	ATOM	553	CA	HIS	A	139	43.869	6.016	16.606	1.00	18.21	A
	ATOM	554	CB	HIS	A	139	44.096	7.157	17.612	1.00	15.84	A
	ATOM	555	CG	HIS	A	139	42.985	7.332	18.600	1.00	15.24	A
	ATOM	556	CD2	HIS	A	139	42.884	6.964	19.900	1.00	13.97	A
	ATOM	557	ND1	HIS	A	139	41.791	7.943	18.280	1.00	14.74	A
15	ATOM	558	CE1	HIS	A	139	41.002	7.944	19.341	1.00	14.19	A
	ATOM	559	NE2	HIS	A	139	41.641	7.356	20.336	1.00	14.15	A
	ATOM	560	C	HIS	A	139	42.715	6.330	15.654	1.00	18.50	A
	ATOM	561	O	HIS	A	139	42.879	7.080	14.693	1.00	20.80	A
	ATOM	562	N	PRO	A	140	41.527	5.767	15.913	1.00	18.32	A
20	ATOM	563	CD	PRO	A	140	41.143	4.984	17.100	1.00	16.71	A
	ATOM	564	CA	PRO	A	140	40.367	6.001	15.048	1.00	17.43	A
	ATOM	565	CB	PRO	A	140	39.273	5.157	15.704	1.00	16.64	A
	ATOM	566	CG	PRO	A	140	39.643	5.204	17.152	1.00	18.43	A
	ATOM	567	C	PRO	A	140	39.914	7.441	14.803	1.00	18.77	A
25	ATOM	568	O	PRO	A	140	39.207	7.695	13.831	1.00	19.88	A
	ATOM	569	N	PHE	A	141	40.301	8.381	15.664	1.00	17.14	A
	ATOM	570	CA	PHE	A	141	39.874	9.767	15.477	1.00	16.42	A
	ATOM	571	CB	PHE	A	141	39.568	10.422	16.836	1.00	14.60	A
	ATOM	572	CG	PHE	A	141	38.386	9.817	17.556	1.00	15.26	A
30	ATOM	573	CD1	PHE	A	141	37.335	9.234	16.842	1.00	14.78	A
	ATOM	574	CD2	PHE	A	141	38.297	9.880	18.942	1.00	13.70	A
	ATOM	575	CE1	PHE	A	141	36.215	8.727	17.502	1.00	16.94	A
	ATOM	576	CE2	PHE	A	141	37.178	9.375	19.615	1.00	15.75	A
	ATOM	577	CZ	PHE	A	141	36.135	8.799	18.893	1.00	16.89	A
35	ATOM	578	C	PHE	A	141	40.857	10.641	14.694	1.00	16.15	A
	ATOM	579	O	PHE	A	141	40.799	11.871	14.761	1.00	17.35	A
	ATOM	580	N	PHE	A	142	41.748	10.011	13.941	1.00	15.88	A
	ATOM	581	CA	PHE	A	142	42.727	10.756	13.154	1.00	17.89	A
	ATOM	582	CB	PHE	A	142	44.115	10.645	13.793	1.00	17.57	A
40	ATOM	583	CG	PHE	A	142	44.240	11.371	15.103	1.00	18.74	A
	ATOM	584	CD1	PHE	A	142	44.559	12.726	15.135	1.00	17.77	A
	ATOM	585	CD2	PHE	A	142	43.997	10.711	16.304	1.00	18.74	A
	ATOM	586	CE1	PHE	A	142	44.632	13.417	16.347	1.00	15.77	A
	ATOM	587	CE2	PHE	A	142	44.065	11.393	17.522	1.00	17.56	A
45	ATOM	588	CZ	PHE	A	142	44.383	12.747	17.542	1.00	17.14	A
	ATOM	589	C	PHE	A	142	42.793	10.231	11.729	1.00	19.12	A
	ATOM	590	O	PHE	A	142	42.659	9.030	11.504	1.00	20.01	A
	ATOM	591	N	VAL	A	143	42.978	11.135	10.769	1.00	18.72	A
	ATOM	592	CA	VAL	A	143	43.102	10.735	9.371	1.00	18.52	A
50	ATOM	593	CB	VAL	A	143	43.294	11.961	8.440	1.00	20.66	A
	ATOM	594	CG1	VAL	A	143	43.843	11.521	7.080	1.00	21.29	A
	ATOM	595	CG2	VAL	A	143	41.958	12.673	8.252	1.00	22.97	A
	ATOM	596	C	VAL	A	143	44.342	9.865	9.330	1.00	18.68	A
	ATOM	597	O	VAL	A	143	45.355	10.199	9.943	1.00	18.42	A
55	ATOM	598	N	LYS	A	144	44.259	8.745	8.623	1.00	18.30	A
	ATOM	599	CA	LYS	A	144	45.384	7.824	8.535	1.00	18.78	A
	ATOM	600	CB	LYS	A	144	44.889	6.373	8.608	1.00	22.27	A
	ATOM	601	CG	LYS	A	144	46.017	5.340	8.557	1.00	29.72	A
	ATOM	602	CD	LYS	A	144	45.491	3.912	8.674	1.00	34.16	A

	ATOM	603	CE	LYS A 144	46.631	2.896	8.577	1.00	37.67	A
	ATOM	604	NZ	LYS A 144	46.138	1.484	8.629	1.00	39.02	A
	ATOM	605	C	LYS A 144	46.192	8.002	7.261	1.00	18.53	A
	ATOM	606	O	LYS A 144	45.643	8.314	6.200	1.00	18.18	A
5	ATOM	607	N	LEU A 145	47.502	7.816	7.385	1.00	16.79	A
	ATOM	608	CA	LEU A 145	48.411	7.900	6.251	1.00	17.45	A
	ATOM	609	CB	LEU 145	49.686	8.653	6.641	0.50	18.82	AC1
	ATOM	610	CG	LEU 145	50.734	8.902	5.549	0.50	20.23	AC1
	ATOM	611	CD1	LEU 145	51.836	9.799	6.093	0.50	18.83	AC1
10	ATOM	612	CD2	LEU 145	51.317	7.581	5.069	0.50	19.79	AC1
	ATOM	613	C	LEU A 145	48.739	6.450	5.907	1.00	19.19	A
	ATOM	614	O	LEU A 145	49.451	5.772	6.659	1.00	17.36	A
	ATOM	615	N	TYR A 146	48.215	5.972	4.782	1.00	17.28	A
	ATOM	616	CA	TYR A 146	48.444	4.593	4.358	1.00	17.57	A
15	ATOM	617	CB	TYR A 146	47.288	4.098	3.486	1.00	17.74	A
	ATOM	618	CG	TYR A 146	45.981	3.926	4.214	1.00	17.50	A
	ATOM	619	CD1	TYR A 146	45.099	4.995	4.377	1.00	16.50	A
	ATOM	620	CE1	TYR A 146	43.881	4.827	5.039	1.00	17.10	A
	ATOM	621	CD2	TYR A 146	45.620	2.686	4.735	1.00	18.28	A
20	ATOM	622	CE2	TYR A 146	44.411	2.506	5.399	1.00	19.84	A
	ATOM	623	CZ	TYR A 146	43.547	3.576	5.544	1.00	17.53	A
	ATOM	624	OH	TYR A 146	42.342	3.376	6.169	1.00	20.67	A
	ATOM	625	C	TYR A 146	49.735	4.376	3.582	1.00	18.72	A
	ATOM	626	O	TYR A 146	50.382	3.338	3.715	1.00	19.51	A
25	ATOM	627	N	PHE A 147	50.110	5.350	2.765	1.00	18.09	A
	ATOM	628	CA	PHE A 147	51.307	5.203	1.952	1.00	17.20	A
	ATOM	629	CB	PHE A 147	51.007	4.258	0.783	1.00	16.77	A
	ATOM	630	CG	PHE A 147	49.835	4.699	-0.070	1.00	17.75	A
	ATOM	631	CD1	PHE A 147	49.967	5.752	-0.975	1.00	16.58	A
30	ATOM	632	CD2	PHE A 147	48.595	4.075	0.053	1.00	18.07	A
	ATOM	633	CE1	PHE A 147	48.886	6.178	-1.742	1.00	19.62	A
	ATOM	634	CE2	PHE A 147	47.503	4.492	-0.710	1.00	18.56	A
	ATOM	635	CZ	PHE A 147	47.647	5.546	-1.610	1.00	19.27	A
	ATOM	636	C	PHE A 147	51.768	6.533	1.395	1.00	17.13	A
35	ATOM	637	O	PHE A 147	51.045	7.528	1.452	1.00	14.43	A
	ATOM	638	N	THR A 148	52.981	6.534	0.854	1.00	17.12	A
	ATOM	639	CA	THR A 148	53.541	7.718	0.232	1.00	17.96	A
	ATOM	640	CB	THR A 148	54.449	8.531	1.197	1.00	21.51	A
	ATOM	641	OG1	THR A 148	55.605	7.760	1.537	1.00	18.83	A
40	ATOM	642	CG2	THR A 148	53.700	8.897	2.472	1.00	19.60	A
	ATOM	643	C	THR A 148	54.386	7.262	-0.946	1.00	20.31	A
	ATOM	644	O	THR A 148	54.860	6.124	-0.991	1.00	18.94	A
	ATOM	645	N	PHE A 149	54.543	8.149	-1.916	1.00	19.16	A
	ATOM	646	CA	PHE A 149	55.368	7.877	-3.073	1.00	18.01	A
45	ATOM	647	CB	PHE A 149	54.748	6.801	-3.989	1.00	17.23	A
	ATOM	648	CG	PHE A 149	53.389	7.144	-4.544	1.00	16.88	A
	ATOM	649	CD1	PHE A 149	53.262	7.888	-5.712	1.00	18.58	A
	ATOM	650	CD2	PHE A 149	52.235	6.668	-3.927	1.00	17.31	A
	ATOM	651	CE1	PHE A 149	52.007	8.149	-6.267	1.00	19.26	A
50	ATOM	652	CE2	PHE A 149	50.972	6.923	-4.470	1.00	19.17	A
	ATOM	653	CZ	PHE A 149	50.858	7.663	-5.642	1.00	19.60	A
	ATOM	654	C	PHE A 149	55.542	9.205	-3.774	1.00	20.85	A
	ATOM	655	O	PHE A 149	54.934	10.200	-3.376	1.00	19.76	A
	ATOM	656	N	GLN A 150	56.398	9.241	-4.782	1.00	19.79	A
55	ATOM	657	CA	GLN A 150	56.636	10.481	-5.497	1.00	24.03	A
	ATOM	658	CB	GLN A 150	57.659	11.347	-4.739	1.00	24.45	A
	ATOM	659	CG	GLN A 150	58.986	10.645	-4.414	1.00	26.28	A
	ATOM	660	CD	GLN A 150	59.988	11.558	-3.692	1.00	29.02	A
	ATOM	661	OE1	GLN A 150	60.693	12.353	-4.321	1.00	27.05	A

	ATOM	662	NE2	GLN A 150	60.042	11.449	-2.365	1.00	26.47	A
	ATOM	663	C	GLN A 150	57.160	10.203	-6.885	1.00	23.88	A
	ATOM	664	O	GLN A 150	57.673	9.118	-7.158	1.00	24.79	A
	ATOM	665	N	ASP A 151	56.987	11.171	-7.774	1.00	25.88	A
5	ATOM	666	CA	ASP A 151	57.527	11.047	-9.117	1.00	26.49	A
	ATOM	667	CB	ASP A 151	56.437	11.126	-10.199	1.00	24.54	A
	ATOM	668	CG	ASP A 151	55.544	12.336	-10.064	1.00	24.95	A
	ATOM	669	OD1	ASP A 151	56.005	13.379	-9.561	1.00	22.44	A
	ATOM	670	OD2	ASP A 151	54.369	12.242	-10.490	1.00	25.72	A
10	ATOM	671	C	ASP A 151	58.515	12.203	-9.220	1.00	28.63	A
	ATOM	672	O	ASP A 151	58.890	12.780	-8.194	1.00	27.83	A
	ATOM	673	N	ASP A 152	58.934	12.560	-10.426	1.00	29.21	A
	ATOM	674	CA	ASP A 152	59.907	13.636	-10.562	1.00	31.88	A
	ATOM	675	CB	ASP A 152	60.325	13.792	-12.026	1.00	33.94	A
15	ATOM	676	CG	ASP A 152	61.033	12.564	-12.557	1.00	38.88	A
	ATOM	677	OD1	ASP A 152	61.817	11.959	-11.791	1.00	39.67	A
	ATOM	678	OD2	ASP A 152	60.817	12.211	-13.738	1.00	41.57	A
	ATOM	679	C	ASP A 152	59.487	14.994	-10.013	1.00	30.90	A
	ATOM	680	O	ASP A 152	60.316	15.735	-9.482	1.00	31.69	A
20	ATOM	681	N	GLU A 153	58.207	15.322	-10.107	1.00	29.44	A
	ATOM	682	CA	GLU A 153	57.767	16.632	-9.646	1.00	28.69	A
	ATOM	683	CB	GLU A 153	56.984	17.327	-10.766	1.00	32.90	A
	ATOM	684	CG	GLU A 153	57.451	16.987	-12.183	1.00	40.57	A
	ATOM	685	CD	GLU A 153	56.920	15.643	-12.675	1.00	45.78	A
25	ATOM	686	OE1	GLU A 153	55.682	15.482	-12.760	1.00	48.91	A
	ATOM	687	OE2	GLU A 153	57.736	14.747	-12.979	1.00	48.95	A
	ATOM	688	C	GLU A 153	56.929	16.683	-8.372	1.00	26.43	A
	ATOM	689	O	GLU A 153	56.947	17.688	-7.660	1.00	25.08	A
	ATOM	690	N	LYS A 154	56.205	15.610	-8.069	1.00	22.39	A
30	ATOM	691	CA	LYS A 154	55.318	15.631	-6.912	1.00	21.43	A
	ATOM	692	CB	LYS A 154	53.861	15.628	-7.398	1.00	20.33	A
	ATOM	693	CG	LYS A 154	53.505	16.716	-8.403	1.00	21.92	A
	ATOM	694	CD	LYS A 154	52.211	16.375	-9.146	1.00	19.70	A
	ATOM	695	CE	LYS A 154	51.775	17.503	-10.077	1.00	20.04	A
35	ATOM	696	NZ	LYS A 154	50.631	17.094	-10.951	1.00	19.97	A
	ATOM	697	C	LYS A 154	55.458	14.522	-5.881	1.00	20.43	A
	ATOM	698	O	LYS A 154	55.949	13.426	-6.173	1.00	21.13	A
	ATOM	699	N	LEU A 155	54.985	14.832	-4.676	1.00	19.69	A
	ATOM	700	CA	LEU A 155	54.950	13.900	-3.553	1.00	19.10	A
40	ATOM	701	CB	LEU A 155	55.362	14.588	-2.252	1.00	19.65	A
	ATOM	702	CG	LEU A 155	56.740	15.234	-2.129	1.00	21.20	A
	ATOM	703	CD1	LEU A 155	56.848	15.918	-0.770	1.00	23.42	A
	ATOM	704	CD2	LEU A 155	57.816	14.174	-2.277	1.00	23.08	A
	ATOM	705	C	LEU A 155	53.478	13.507	-3.427	1.00	18.87	A
45	ATOM	706	O	LEU A 155	52.600	14.348	-3.620	1.00	18.61	A
	ATOM	707	N	TYR A 156	53.209	12.249	-3.091	1.00	15.02	A
	ATOM	708	CA	TYR A 156	51.834	11.783	-2.934	1.00	16.29	A
	ATOM	709	CB	TYR A 156	51.470	10.769	-4.029	1.00	14.20	A
	ATOM	710	CG	TYR A 156	51.603	11.273	-5.449	1.00	17.29	A
50	ATOM	711	CD1	TYR A 156	52.857	11.429	-6.045	1.00	16.46	A
	ATOM	712	CE1	TYR A 156	52.978	11.884	-7.360	1.00	18.68	A
	ATOM	713	CD2	TYR A 156	50.474	11.588	-6.202	1.00	16.43	A
	ATOM	714	CE2	TYR A 156	50.583	12.048	-7.512	1.00	16.31	A
	ATOM	715	CZ	TYR A 156	51.835	12.192	-8.083	1.00	18.17	A
55	ATOM	716	OH	TYR A 156	51.941	12.651	-9.371	1.00	17.47	A
	ATOM	717	C	TYR A 156	51.657	11.108	-1.572	1.00	16.32	A
	ATOM	718	O	TYR A 156	52.412	10.197	-1.235	1.00	16.27	A
	ATOM	719	N	PHE A 157	50.678	11.568	-0.792	1.00	15.47	A
	ATOM	720	CA	PHE A 157	50.385	10.966	0.508	1.00	16.66	A

	ATOM	721	CB	PHE	A	157	50.324	12.014	1.629	1.00	16.91	A
	ATOM	722	CG	PHE	A	157	51.631	12.708	1.907	1.00	18.96	A
	ATOM	723	CD1	PHE	A	157	52.821	12.261	1.340	1.00	20.31	A
	ATOM	724	CD2	PHE	A	157	51.664	13.829	2.732	1.00	21.12	A
5	ATOM	725	CE1	PHE	A	157	54.025	12.926	1.585	1.00	22.08	A
	ATOM	726	CE2	PHE	A	157	52.865	14.500	2.982	1.00	22.18	A
	ATOM	727	CZ	PHE	A	157	54.045	14.045	2.405	1.00	21.27	A
	ATOM	728	C	PHE	A	157	49.016	10.308	0.404	1.00	16.52	A
	ATOM	729	O	PHE	A	157	48.029	10.979	0.110	1.00	17.32	A
10	ATOM	730	N	GLY	A	158	48.953	9.002	0.644	1.00	15.97	A
	ATOM	731	CA	GLY	A	158	47.684	8.299	0.572	1.00	16.13	A
	ATOM	732	C	GLY	A	158	47.000	8.383	1.920	1.00	14.94	A
	ATOM	733	O	GLY	A	158	47.445	7.756	2.879	1.00	16.28	A
	ATOM	734	N	LEU	A	159	45.915	9.145	1.989	1.00	13.50	A
15	ATOM	735	CA	LEU	A	159	45.191	9.340	3.241	1.00	15.20	A
	ATOM	736	CB	LEU	A	159	45.031	10.835	3.517	1.00	14.20	A
	ATOM	737	CG	LEU	A	159	46.270	11.726	3.385	1.00	19.00	A
	ATOM	738	CD1	LEU	A	159	45.847	13.188	3.477	1.00	17.12	A
	ATOM	739	CD2	LEU	A	159	47.275	11.390	4.471	1.00	14.71	A
20	ATOM	740	C	LEU	A	159	43.809	8.716	3.232	1.00	15.53	A
	ATOM	741	O	LEU	A	159	43.232	8.472	2.177	1.00	16.05	A
	ATOM	742	N	SER	A	160	43.268	8.469	4.418	1.00	15.86	A
	ATOM	743	CA	SER	A	160	41.932	7.917	4.498	1.00	19.01	A
	ATOM	744	CB	SER	A	160	41.566	7.582	5.949	1.00	22.90	A
25	ATOM	745	OG	SER	A	160	41.901	8.629	6.833	1.00	24.18	A
	ATOM	746	C	SER	A	160	40.987	8.968	3.924	1.00	20.43	A
	ATOM	747	O	SER	A	160	41.213	10.173	4.062	1.00	19.96	A
	ATOM	748	N	TYR	A	161	39.945	8.508	3.250	1.00	19.20	A
	ATOM	749	CA	TYR	A	161	38.975	9.406	2.644	1.00	20.37	A
30	ATOM	750	CB	TYR	A	161	38.471	8.785	1.332	1.00	20.00	A
	ATOM	751	CG	TYR	A	161	37.314	9.502	0.666	1.00	20.72	A
	ATOM	752	CD1	TYR	A	161	37.222	10.895	0.682	1.00	18.22	A
	ATOM	753	CE1	TYR	A	161	36.180	11.557	0.029	1.00	22.24	A
	ATOM	754	CD2	TYR	A	161	36.333	8.784	-0.020	1.00	20.53	A
35	ATOM	755	CE2	TYR	A	161	35.287	9.436	-0.678	1.00	24.24	A
	ATOM	756	CZ	TYR	A	161	35.218	10.822	-0.648	1.00	22.32	A
	ATOM	757	OH	TYR	A	161	34.194	11.471	-1.298	1.00	23.03	A
	ATOM	758	C	TYR	A	161	37.812	9.681	3.598	1.00	20.14	A
	ATOM	759	O	TYR	A	161	36.959	8.819	3.810	1.00	19.53	A
40	ATOM	760	N	ALA	A	162	37.791	10.880	4.178	1.00	19.92	A
	ATOM	761	CA	ALA	A	162	36.721	11.271	5.099	1.00	21.07	A
	ATOM	762	CB	ALA	A	162	37.187	12.419	6.002	1.00	19.60	A
	ATOM	763	C	ALA	A	162	35.542	11.712	4.238	1.00	22.07	A
	ATOM	764	O	ALA	A	162	35.436	12.875	3.860	1.00	20.66	A
45	ATOM	765	N	LYS	A	163	34.653	10.769	3.945	1.00	23.27	A
	ATOM	766	CA	LYS	A	163	33.503	11.017	3.080	1.00	27.12	A
	ATOM	767	CB	LYS	A	163	32.663	9.741	2.963	1.00	29.68	A
	ATOM	768	CG	LYS	A	163	33.455	8.524	2.515	1.00	37.67	A
	ATOM	769	CD	LYS	A	163	32.556	7.310	2.321	1.00	42.24	A
50	ATOM	770	CE	LYS	A	163	33.373	6.034	2.185	1.00	44.48	A
	ATOM	771	NZ	LYS	A	163	34.143	5.735	3.430	1.00	44.88	A
	ATOM	772	C	LYS	A	163	32.581	12.186	3.411	1.00	25.78	A
	ATOM	773	O	LYS	A	163	32.103	12.863	2.506	1.00	26.53	A
	ATOM	774	N	ASN	A	164	32.327	12.441	4.689	1.00	24.57	A
55	ATOM	775	CA	ASN	A	164	31.420	13.522	5.033	1.00	23.77	A
	ATOM	776	CB	ASN	A	164	30.610	13.129	6.265	1.00	25.02	A
	ATOM	777	CG	ASN	A	164	29.537	12.101	5.932	1.00	27.54	A
	ATOM	778	OD1	ASN	A	164	28.772	12.281	4.983	1.00	28.79	A
	ATOM	779	ND2	ASN	A	164	29.475	11.024	6.704	1.00	27.13	A

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         ATOM   780  C    ASN A 164      31.999  14.931   5.169  1.00 24.43        A
         ATOM   781  O    ASN A 164      31.306  15.856   5.589  1.00 23.98        A
         ATOM   782  N    GLY A 165      33.262  15.097   4.795  1.00 21.56        A
         ATOM   783  CA   GLY A 165      33.873  16.414   4.836  1.00 24.39        A
    5    ATOM   784  C    GLY A 165      34.191  17.043   6.181  1.00 23.62        A
         ATOM   785  O    GLY A 165      34.380  16.352   7.177  1.00 23.26        A
         ATOM   786  N    GLU A 166      34.234  18.373   6.186  1.00 23.22        A
         ATOM   787  CA   GLU A 166      34.563  19.176   7.362  1.00 24.54        A
         ATOM   788  CB   GLU A 166      35.055  20.558   6.913  1.00 25.04        A
   10    ATOM   789  CG   GLU A 166      36.419  20.569   6.229  1.00 26.48        A
         ATOM   790  CD   GLU A 166      36.699  21.889   5.517  1.00 30.02        A
         ATOM   791  OE1  GLU A 166      36.081  22.906   5.889  1.00 29.33        A
         ATOM   792  OE2  GLU A 166      37.544  21.916   4.596  1.00 30.48        A
         ATOM   793  C    GLU A 166      33.436  19.372   8.369  1.00 24.44        A
   15    ATOM   794  O    GLU A 166      32.279  19.541   8.001  1.00 22.76        A
         ATOM   795  N    LEU A 167      33.791  19.370   9.649  1.00 22.95        A
         ATOM   796  CA   LEU A 167      32.813  19.581  10.707  1.00 22.26        A
         ATOM   797  CB   LEU A 167      33.497  19.481  12.073  1.00 22.32        A
         ATOM   798  CG   LEU A 167      32.706  19.923  13.306  1.00 22.04        A
   20    ATOM   799  CD1  LEU A 167      31.454  19.074  13.463  1.00 19.66        A
         ATOM   800  CD2  LEU A 167      33.597  19.805  14.537  1.00 21.17        A
         ATOM   801  C    LEU A 167      32.193  20.971  10.529  1.00 23.49        A
         ATOM   802  O    LEU A 167      31.047  21.209  10.907  1.00 23.56        A
         ATOM   803  N    LEU A 168      32.960  21.887   9.948  1.00 24.25        A
   25    ATOM   804  CA   LEU A 168      32.473  23.245   9.722  1.00 26.64        A
         ATOM   805  CB   LEU A 168      33.560  24.099   9.066  1.00 25.62        A
         ATOM   806  CG   LEU A 168      33.198  25.546   8.707  1.00 27.34        A
         ATOM   807  CD1  LEU A 168      32.718  26.296   9.946  1.00 26.42        A
         ATOM   808  CD2  LEU A 168      34.418  26.238   8.119  1.00 26.74        A
   30    ATOM   809  C    LEU A 168      31.234  23.218   8.829  1.00 27.13        A
         ATOM   810  O    LEU A 168      30.297  23.989   9.030  1.00 26.01        A
         ATOM   811  N    LYS A 169      31.233  22.320   7.848  1.00 26.41        A
         ATOM   812  CA   LYS A 169      30.106  22.210   6.934  1.00 27.70        A
         ATOM   813  CB   LYS A 169      30.324  21.064   5.945  1.00 30.49        A
   35    ATOM   814  CG   LYS A 169      29.151  20.854   4.993  1.00 32.47        A
         ATOM   815  CD   LYS A 169      29.407  19.728   3.998  1.00 35.98        A
         ATOM   816  CE   LYS A 169      29.462  18.372   4.683  1.00 38.53        A
         ATOM   817  NZ   LYS A 169      29.622  17.263   3.702  1.00 41.00        A
         ATOM   818  C    LYS A 169      28.801  21.985   7.682  1.00 28.12        A
   40    ATOM   819  O    LYS A 169      27.785  22.608   7.371  1.00 28.08        A
         ATOM   820  N    TYR A 170      28.826  21.094   8.668  1.00 26.53        A
         ATOM   821  CA   TYR A 170      27.624  20.791   9.434  1.00 26.95        A
         ATOM   822  CB   TYR A 170      27.810  19.476  10.193  1.00 25.03        A
         ATOM   823  CG   TYR A 170      27.898  18.300   9.251  1.00 26.65        A
   45    ATOM   824  CD1  TYR A 170      26.745  17.661   8.790  1.00 28.27        A
         ATOM   825  CE1  TYR A 170      26.814  16.642   7.839  1.00 26.85        A
         ATOM   826  CD2  TYR A 170      29.127  17.884   8.742  1.00 27.83        A
         ATOM   827  CE2  TYR A 170      29.209  16.869   7.792  1.00 27.19        A
         ATOM   828  CZ   TYR A 170      28.049  16.254   7.343  1.00 30.02        A
   50    ATOM   829  OH   TYR A 170      28.130  15.268   6.382  1.00 29.23        A
         ATOM   830  C    TYR A 170      27.229  21.918  10.376  1.00 27.59        A
         ATOM   831  O    TYR A 170      26.045  22.122  10.642  1.00 29.25        A
         ATOM   832  N    ILE A 171      28.208  22.660  10.882  1.00 28.16        A
         ATOM   833  CA   ILE A 171      27.883  23.770  11.763  1.00 29.03        A
   55    ATOM   834  CB   ILE A 171      29.151  24.435  12.337  1.00 27.51        A
         ATOM   835  CG2  ILE A 171      28.773  25.705  13.084  1.00 27.97        A
         ATOM   836  CG1  ILE A 171      29.872  23.458  13.272  1.00 26.70        A
         ATOM   837  CD1  ILE A 171      31.163  23.996  13.856  1.00 24.07        A
         ATOM   838  C    ILE A 171      27.094  24.796  10.944  1.00 31.41        A
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	ATOM	839	O	ILE	A	171	26.088	25.335	11.407	1.00	31.69	A
	ATOM	840	N	ARG	A	172	27.546	25.047	9.719	1.00	33.21	A
	ATOM	841	CA	ARG	A	172	26.874	26.000	8.844	1.00	36.54	A
	ATOM	842	CB	ARG	A	172	27.734	26.314	7.616	1.00	37.73	A
5	ATOM	843	CG	ARG	A	172	29.057	27.011	7.912	1.00	41.65	A
	ATOM	844	CD	ARG	A	172	29.708	27.492	6.616	1.00	45.29	A
	ATOM	845	NE	ARG	A	172	31.037	28.070	6.812	1.00	48.51	A
	ATOM	846	CZ	ARG	A	172	31.314	29.059	7.658	1.00	51.53	A
	ATOM	847	NH1	ARG	A	172	30.355	29.593	8.406	1.00	53.75	A
10	ATOM	848	NH2	ARG	A	172	32.553	29.526	7.748	1.00	51.21	A
	ATOM	849	C	ARG	A	172	25.528	25.459	8.378	1.00	37.67	A
	ATOM	850	O	ARG	A	172	24.550	26.200	8.288	1.00	39.09	A
	ATOM	851	N	LYS	A	173	25.481	24.163	8.092	1.00	38.44	A
	ATOM	852	CA	LYS	A	173	24.259	23.528	7.619	1.00	39.25	A
15	ATOM	853	CB	LYS	A	173	24.523	22.061	7.272	1.00	41.89	A
	ATOM	854	CG	LYS	A	173	23.279	21.298	6.830	1.00	45.52	A
	ATOM	855	CD	LYS	A	173	23.557	19.808	6.653	1.00	49.60	A
	ATOM	856	CE	LYS	A	173	24.477	19.530	5.469	1.00	52.63	A
	ATOM	857	NZ	LYS	A	173	23.855	19.894	4.160	1.00	54.61	A
20	ATOM	858	C	LYS	A	173	23.089	23.608	8.595	1.00	39.30	A
	ATOM	859	O	LYS	A	173	21.981	23.960	8.201	1.00	39.62	A
	ATOM	860	N	ILE	A	174	23.320	23.282	9.863	1.00	37.96	A
	ATOM	861	CA	ILE	A	174	22.229	23.314	10.833	1.00	37.36	A
	ATOM	862	CB	ILE	A	174	22.159	21.998	11.652	1.00	37.44	A
25	ATOM	863	CG2	ILE	A	174	22.058	20.802	10.709	1.00	38.37	A
	ATOM	864	CG1	ILE	A	174	23.397	21.850	12.532	1.00	37.25	A
	ATOM	865	CD1	ILE	A	174	23.355	20.620	13.418	1.00	36.85	A
	ATOM	866	C	ILE	A	174	22.259	24.492	11.801	1.00	36.71	A
	ATOM	867	O	ILE	A	174	21.448	24.556	12.724	1.00	38.05	A
30	ATOM	868	N	GLY	A	175	23.185	25.423	11.592	1.00	35.48	A
	ATOM	869	CA	GLY	A	175	23.265	26.585	12.462	1.00	35.29	A
	ATOM	870	C	GLY	A	175	24.053	26.360	13.737	1.00	35.06	A
	ATOM	871	O	GLY	A	175	25.066	27.019	13.970	1.00	37.46	A
	ATOM	872	N	SER	A	176	23.581	25.441	14.571	1.00	33.94	A
35	ATOM	873	CA	SER	A	176	24.253	25.113	15.822	1.00	32.84	A
	ATOM	874	CB	SER	A	176	23.938	26.155	16.901	1.00	33.54	A
	ATOM	875	OG	SER	A	176	22.599	26.056	17.347	1.00	34.86	A
	ATOM	876	C	SER	A	176	23.796	23.731	16.276	1.00	32.34	A
	ATOM	877	O	SER	A	176	22.726	23.263	15.884	1.00	32.82	A
40	ATOM	878	N	PHE	A	177	24.609	23.085	17.103	1.00	29.39	A
	ATOM	879	CA	PHE	A	177	24.313	21.743	17.597	1.00	27.20	A
	ATOM	880	CB	PHE	A	177	25.621	20.989	17.865	1.00	26.39	A
	ATOM	881	CG	PHE	A	177	26.372	20.585	16.622	1.00	26.18	A
	ATOM	882	CD1	PHE	A	177	26.210	21.277	15.426	1.00	25.30	A
45	ATOM	883	CD2	PHE	A	177	27.266	19.516	16.662	1.00	26.05	A
	ATOM	884	CE1	PHE	A	177	26.923	20.912	14.290	1.00	26.59	A
	ATOM	885	CE2	PHE	A	177	27.986	19.143	15.532	1.00	26.06	A
	ATOM	886	CZ	PHE	A	177	27.815	19.841	14.343	1.00	25.42	A
	ATOM	887	C	PHE	A	177	23.500	21.752	18.884	1.00	27.00	A
50	ATOM	888	O	PHE	A	177	23.704	22.610	19.747	1.00	26.48	A
	ATOM	889	N	ASP	A	178	22.578	20.802	19.022	1.00	26.70	A
	ATOM	890	CA	ASP	A	178	21.816	20.729	20.260	1.00	26.35	A
	ATOM	891	CB	ASP	A	178	20.621	19.773	20.142	1.00	29.90	A
	ATOM	892	CG	ASP	A	178	21.020	18.372	19.720	1.00	32.28	A
55	ATOM	893	OD1	ASP	A	178	22.157	17.949	20.014	1.00	35.21	A
	ATOM	894	OD2	ASP	A	178	20.179	17.683	19.105	1.00	34.79	A
	ATOM	895	C	ASP	A	178	22.810	20.228	21.311	1.00	25.03	A
	ATOM	896	O	ASP	A	178	23.974	19.968	20.992	1.00	21.24	A
	ATOM	897	N	GLU	A	179	22.361	20.083	22.552	1.00	23.60	A

	ATOM	898	CA	GLU	A	179	23.247	19.644	23.619	1.00 25.18	A
	ATOM	899	CB	GLU	A	179	22.542	19.770	24.971	1.00 27.60	A
	ATOM	900	CG	GLU	A	179	23.324	19.176	26.130	1.00 32.58	A
	ATOM	901	CD	GLU	A	179	22.997	19.845	27.449	1.00 35.82	A
5	ATOM	902	OE1	GLU	A	179	21.825	20.224	27.645	1.00 35.95	A
	ATOM	903	OE2	GLU	A	179	23.912	19.984	28.291	1.00 38.19	A
	ATOM	904	C	GLU	A	179	23.808	18.235	23.450	1.00 24.08	A
	ATOM	905	O	GLU	A	179	24.977	17.989	23.756	1.00 22.79	A
	ATOM	906	N	THR	A	180	22.983	17.316	22.961	1.00 23.36	A
10	ATOM	907	CA	THR	A	180	23.412	15.935	22.761	1.00 22.15	A
	ATOM	908	CB	THR	A	180	22.224	15.054	22.320	1.00 23.77	A
	ATOM	909	OG1	THR	A	180	21.222	15.075	23.341	1.00 26.37	A
	ATOM	910	CG2	THR	A	180	22.670	13.616	22.088	1.00 22.66	A
	ATOM	911	C	THR	A	180	24.533	15.830	21.724	1.00 22.01	A
15	ATOM	912	O	THR	A	180	25.533	15.141	21.944	1.00 19.87	A
	ATOM	913	N	CYS	A	181	24.365	16.511	20.596	1.00 21.21	A
	ATOM	914	CA	CYS	A	181	25.372	16.480	19.541	1.00 22.22	A
	ATOM	915	CB	CYS	A	181	24.800	17.065	18.250	1.00 24.62	A
	ATOM	916	SG	CYS	A	181	23.435	16.080	17.560	1.00 29.50	A
20	ATOM	917	C	CYS	A	181	26.633	17.232	19.954	1.00 23.07	A
	ATOM	918	O	CYS	A	181	27.746	16.827	19.608	1.00 23.95	A
	ATOM	919	N	THR	A	182	26.463	18.325	20.695	1.00 22.76	A
	ATOM	920	CA	THR	A	182	27.606	19.103	21.161	1.00 21.49	A
	ATOM	921	CB	THR	A	182	27.167	20.346	21.978	1.00 21.37	A
25	ATOM	922	OG1	THR	A	182	26.459	21.262	21.134	1.00 22.50	A
	ATOM	923	CG2	THR	A	182	28.379	21.046	22.565	1.00 18.36	A
	ATOM	924	C	THR	A	182	28.454	18.215	22.071	1.00 21.48	A
	ATOM	925	O	THR	A	182	29.669	18.090	21.894	1.00 19.95	A
	ATOM	926	N	ARG	A	183	27.798	17.602	23.050	1.00 18.97	A
30	ATOM	927	CA	ARG	A	183	28.468	16.723	23.996	1.00 19.39	A
	ATOM	928	CB	ARG		183	27.455	16.140	24.984	0.50 19.46	AC1
	ATOM	929	CG	ARG		183	28.030	15.062	25.887	0.50 18.77	AC1
	ATOM	930	CD	ARG		183	27.021	14.571	26.925	0.50 21.19	AC1
	ATOM	931	NE	ARG		183	26.605	15.642	27.824	0.50 19.46	AC1
35	ATOM	932	CZ	ARG		183	25.496	16.362	27.679	0.50 20.45	AC1
	ATOM	933	NH1	ARG		183	24.672	16.123	26.666	0.50 19.81	AC1
	ATOM	934	NH2	ARG		183	25.224	17.338	28.539	0.50 17.11	AC1
	ATOM	935	C	ARG	A	183	29.206	15.577	23.302	1.00 20.02	A
	ATOM	936	O	ARG	A	183	30.383	15.333	23.573	1.00 19.97	A
40	ATOM	937	N	PHE	A	184	28.520	14.871	22.409	1.00 19.24	A
	ATOM	938	CA	PHE	A	184	29.144	13.746	21.722	1.00 18.04	A
	ATOM	939	CB	PHE	A	184	28.158	13.078	20.764	1.00 21.05	A
	ATOM	940	CG	PHE	A	184	28.719	11.857	20.098	1.00 22.67	A
	ATOM	941	CD1	PHE	A	184	28.717	10.630	20.754	1.00 22.97	A
45	ATOM	942	CD2	PHE	A	184	29.317	11.949	18.850	1.00 19.97	A
	ATOM	943	CE1	PHE	A	184	29.308	9.510	20.176	1.00 23.53	A
	ATOM	944	CE2	PHE	A	184	29.915	10.833	18.263	1.00 24.11	A
	ATOM	945	CZ	PHE	A	184	29.910	9.613	18.928	1.00 22.97	A
	ATOM	946	C	PHE	A	184	30.403	14.127	20.941	1.00 17.99	A
50	ATOM	947	O	PHE	A	184	31.461	13.531	21.130	1.00 18.89	A
	ATOM	948	N	TYR	A	185	30.292	15.110	20.056	1.00 15.73	A
	ATOM	949	CA	TYR	A	185	31.443	15.519	19.265	1.00 15.72	A
	ATOM	950	CB	TYR	A	185	30.992	16.413	18.111	1.00 17.33	A
	ATOM	951	CG	TYR	A	185	30.364	15.584	17.015	1.00 19.37	A
55	ATOM	952	CD1	TYR	A	185	31.159	14.809	16.168	1.00 16.53	A
	ATOM	953	CE1	TYR	A	185	30.590	13.952	15.232	1.00 18.12	A
	ATOM	954	CD2	TYR	A	185	28.976	15.484	16.892	1.00 18.18	A
	ATOM	955	CE2	TYR	A	185	28.398	14.623	15.956	1.00 18.90	A
	ATOM	956	CZ	TYR	A	185	29.211	13.861	15.133	1.00 18.41	A

	ATOM	957	OH	TYR A 185	28.650	12.995	14.218	1.00 20.48	A
	ATOM	958	C	TYR A 185	32.544	16.172	20.083	1.00 15.79	A
	ATOM	959	O	TYR A 185	33.720	16.015	19.766	1.00 17.69	A
	ATOM	960	N	THR A 186	32.176	16.887	21.142	1.00 15.68	A
5	ATOM	961	CA	THR A 186	33.184	17.504	21.997	1.00 16.03	A
	ATOM	962	CB	THR A 186	32.559	18.403	23.094	1.00 16.62	A
	ATOM	963	OG1	THR A 186	31.866	19.503	22.481	1.00 14.79	A
	ATOM	964	CG2	THR A 186	33.656	18.953	24.019	1.00 14.68	A
	ATOM	965	C	THR A 186	33.954	16.375	22.680	1.00 15.59	A
10	ATOM	966	O	THR A 186	35.176	16.443	22.823	1.00 13.77	A
	ATOM	967	N	ALA A 187	33.234	15.333	23.097	1.00 14.06	A
	ATOM	968	CA	ALA A 187	33.869	14.196	23.757	1.00 14.74	A
	ATOM	969	CB	ALA A 187	32.810	13.195	24.224	1.00 14.32	A
	ATOM	970	C	ALA A 187	34.875	13.509	22.821	1.00 14.41	A
15	ATOM	971	O	ALA A 187	35.972	13.136	23.247	1.00 15.61	A
	ATOM	972	N	GLU A 188	34.516	13.340	21.549	1.00 14.01	A
	ATOM	973	CA	GLU A 188	35.443	12.704	20.615	1.00 13.50	A
	ATOM	974	CB	GLU A 188	34.782	12.449	19.251	1.00 12.85	A
	ATOM	975	CG	GLU A 188	33.622	11.454	19.282	1.00 12.71	A
20	ATOM	976	CD	GLU A 188	33.464	10.685	17.979	1.00 15.01	A
	ATOM	977	OE1	GLU A 188	33.687	11.275	16.899	1.00 13.21	A
	ATOM	978	OE2	GLU A 188	33.110	9.484	18.031	1.00 17.69	A
	ATOM	979	C	GLU A 188	36.682	13.582	20.436	1.00 13.34	A
	ATOM	980	O	GLU A 188	37.803	13.085	20.408	1.00 14.69	A
25	ATOM	981	N	ILE A 189	36.486	14.893	20.326	1.00 13.52	A
	ATOM	982	CA	ILE A 189	37.627	15.787	20.159	1.00 13.35	A
	ATOM	983	CB	ILE A 189	37.169	17.247	19.939	1.00 13.95	A
	ATOM	984	CG2	ILE A 189	38.381	18.165	19.822	1.00 12.47	A
	ATOM	985	CG1	ILE A 189	36.302	17.332	18.671	1.00 13.44	A
30	ATOM	986	CD1	ILE A 189	35.588	18.664	18.491	1.00 14.29	A
	ATOM	987	C	ILE A 189	38.530	15.702	21.394	1.00 14.63	A
	ATOM	988	O	ILE A 189	39.753	15.595	21.271	1.00 12.97	A
	ATOM	989	N	VAL A 190	37.927	15.751	22.582	1.00 14.35	A
	ATOM	990	CA	VAL A 190	38.684	15.655	23.832	1.00 13.22	A
35	ATOM	991	CB	VAL A 190	37.743	15.690	25.061	1.00 14.28	A
	ATOM	992	CG1	VAL A 190	38.509	15.267	26.326	1.00 15.08	A
	ATOM	993	CG2	VAL A 190	37.160	17.082	25.233	1.00 12.08	A
	ATOM	994	C	VAL A 190	39.468	14.338	23.859	1.00 14.61	A
	ATOM	995	O	VAL A 190	40.634	14.304	24.250	1.00 13.72	A
40	ATOM	996	N	SER A 191	38.825	13.254	23.432	1.00 15.26	A
	ATOM	997	CA	SER A 191	39.478	11.943	23.421	1.00 16.81	A
	ATOM	998	CB	SER 191	38.470	10.857	23.041	0.50 16.14	AC1
	ATOM	999	OG	SER 191	39.018	9.569	23.238	0.50 16.94	AC1
	ATOM	1000	C	SER A 191	40.649	11.928	22.441	1.00 16.58	A
45	ATOM	1001	O	SER A 191	41.697	11.335	22.713	1.00 13.96	A
	ATOM	1002	N	ALA A 192	40.468	12.586	21.300	1.00 15.26	A
	ATOM	1003	CA	ALA A 192	41.518	12.645	20.292	1.00 14.37	A
	ATOM	1004	CB	ALA A 192	40.989	13.296	19.016	1.00 14.43	A
	ATOM	1005	C	ALA A 192	42.695	13.440	20.845	1.00 16.46	A
50	ATOM	1006	O	ALA A 192	43.851	13.038	20.697	1.00 17.96	A
	ATOM	1007	N	LEU A 193	42.401	14.563	21.496	1.00 15.02	A
	ATOM	1008	CA	LEU A 193	43.459	15.392	22.067	1.00 15.42	A
	ATOM	1009	CB	LEU A 193	42.884	16.712	22.600	1.00 12.88	A
	ATOM	1010	CG	LEU A 193	42.445	17.721	21.525	1.00 15.97	A
55	ATOM	1011	CD1	LEU A 193	41.869	18.979	22.190	1.00 13.97	A
	ATOM	1012	CD2	LEU A 193	43.642	18.088	20.655	1.00 14.58	A
	ATOM	1013	C	LEU A 193	44.211	14.659	23.174	1.00 14.49	A
	ATOM	1014	O	LEU A 193	45.427	14.813	23.310	1.00 16.56	A
	ATOM	1015	N	GLU A 194	43.500	13.870	23.975	1.00 13.96	A

	ATOM	1016	CA	GLU	A	194	44.179	13.123	25.032	1.00 14.08	A
	ATOM	1017	CB	GLU	A	194	43.190	12.295	25.857	1.00 14.65	A
	ATOM	1018	CG	GLU	A	194	43.882	11.301	26.789	1.00 17.09	A
	ATOM	1019	CD	GLU	A	194	42.924	10.592	27.730	1.00 19.59	A
5	ATOM	1020	OE1	GLU	A	194	41.809	10.237	27.295	1.00 19.25	A
	ATOM	1021	OE2	GLU	A	194	43.302	10.380	28.906	1.00 20.20	A
	ATOM	1022	C	GLU	A	194	45.208	12.199	24.386	1.00 13.57	A
	ATOM	1023	O	GLU	A	194	46.337	12.093	24.847	1.00 14.23	A
	ATOM	1024	N	TYR	A	195	44.822	11.544	23.301	1.00 14.89	A
10	ATOM	1025	CA	TYR	A	195	45.743	10.642	22.618	1.00 16.58	A
	ATOM	1026	CB	TYR	A	195	45.030	9.910	21.488	1.00 17.29	A
	ATOM	1027	CG	TYR	A	195	45.956	9.058	20.649	1.00 17.92	A
	ATOM	1028	CD1	TYR	A	195	46.347	7.788	21.077	1.00 17.96	A
	ATOM	1029	CE1	TYR	A	195	47.203	6.996	20.304	1.00 19.77	A
15	ATOM	1030	CD2	TYR	A	195	46.445	9.524	19.428	1.00 16.67	A
	ATOM	1031	CE2	TYR	A	195	47.299	8.744	18.650	1.00 18.51	A
	ATOM	1032	CZ	TYR	A	195	47.671	7.481	19.094	1.00 20.24	A
	ATOM	1033	OH	TYR	A	195	48.506	6.705	18.325	1.00 21.89	A
	ATOM	1034	C	TYR	A	195	46.917	11.419	22.035	1.00 16.98	A
20	ATOM	1035	O	TYR	A	195	48.081	11.047	22.203	1.00 14.61	A
	ATOM	1036	N	LEU	A	196	46.599	12.507	21.347	1.00 16.30	A
	ATOM	1037	CA	LEU	A	196	47.619	13.328	20.720	1.00 18.15	A
	ATOM	1038	CB	LEU	A	196	46.969	14.502	19.982	1.00 18.59	A
	ATOM	1039	CG	LEU	A	196	47.834	15.203	18.935	1.00 22.51	A
25	ATOM	1040	CD1	LEU	A	196	48.222	14.206	17.841	1.00 20.94	A
	ATOM	1041	CD2	LEU	A	196	47.060	16.375	18.338	1.00 22.98	A
	ATOM	1042	C	LEU	A	196	48.592	13.844	21.763	1.00 17.75	A
	ATOM	1043	O	LEU	A	196	49.801	13.644	21.649	1.00 18.33	A
	ATOM	1044	N	HIS	A	197	48.064	14.495	22.792	1.00 17.12	A
30	ATOM	1045	CA	HIS	A	197	48.913	15.042	23.842	1.00 18.47	A
	ATOM	1046	CB	HIS	A	197	48.069	15.866	24.817	1.00 15.90	A
	ATOM	1047	CG	HIS	A	197	47.571	17.152	24.231	1.00 19.15	A
	ATOM	1048	CD2	HIS	A	197	47.830	17.745	23.038	1.00 18.22	A
	ATOM	1049	ND1	HIS	A	197	46.704	17.992	24.897	1.00 17.47	A
35	ATOM	1050	CE1	HIS	A	197	46.450	19.047	24.139	1.00 19.74	A
	ATOM	1051	NE2	HIS	A	197	47.119	18.921	23.007	1.00 15.69	A
	ATOM	1052	C	HIS	A	197	49.696	13.958	24.572	1.00 19.40	A
	ATOM	1053	O	HIS	A	197	50.823	14.192	25.021	1.00 19.42	A
	ATOM	1054	N	GLY	A	198	49.106	12.770	24.679	1.00 18.59	A
40	ATOM	1055	CA	GLY	A	198	49.793	11.675	25.339	1.00 19.60	A
	ATOM	1056	C	GLY	A	198	51.075	11.307	24.612	1.00 21.86	A
	ATOM	1057	O	GLY	A	198	51.963	10.682	25.186	1.00 23.09	A
	ATOM	1058	N	LYS	A	199	51.174	11.687	23.341	1.00 22.81	A
	ATOM	1059	CA	LYS	A	199	52.368	11.401	22.549	1.00 24.43	A
45	ATOM	1060	CB	LYS	A	199	51.990	10.905	21.154	1.00 26.00	A
	ATOM	1061	CG	LYS	A	199	51.378	9.520	21.133	1.00 30.98	A
	ATOM	1062	CD	LYS	A	199	51.291	9.002	19.708	1.00 36.85	A
	ATOM	1063	CE	LYS	A	199	50.832	7.559	19.682	1.00 40.37	A
	ATOM	1064	NZ	LYS	A	199	51.646	6.691	20.581	1.00 43.48	A
50	ATOM	1065	C	LYS	A	199	53.253	12.631	22.414	1.00 23.88	A
	ATOM	1066	O	LYS	A	199	54.144	12.669	21.568	1.00 24.97	A
	ATOM	1067	N	GLY	A	200	52.997	13.638	23.243	1.00 24.00	A
	ATOM	1068	CA	GLY	A	200	53.790	14.853	23.203	1.00 22.12	A
	ATOM	1069	C	GLY	A	200	53.665	15.632	21.907	1.00 22.14	A
55	ATOM	1070	O	GLY	A	200	54.632	16.231	21.439	1.00 22.41	A
	ATOM	1071	N	ILE	A	201	52.475	15.630	21.320	1.00 20.00	A
	ATOM	1072	CA	ILE	A	201	52.252	16.355	20.080	1.00 18.93	A
	ATOM	1073	CB	ILE	A	201	51.784	15.414	18.955	1.00 19.70	A
	ATOM	1074	CG2	ILE	A	201	51.414	16.226	17.716	1.00 20.12	A

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      ATOM   1075  CG1 ILE A 201      52.880  14.395  18.636  1.00 20.03       A
      ATOM   1076  CD1 ILE A 201      52.408  13.258  17.745  1.00 22.75       A
      ATOM   1077  C   ILE A 201      51.193  17.425  20.270  1.00 19.87       A
      ATOM   1078  O   ILE A 201      50.121  17.161  20.817  1.00 20.08       A
   5  ATOM   1079  N   ILE A 202      51.508  18.633  19.815  1.00 19.94       A
      ATOM   1080  CA  ILE A 202      50.601  19.772  19.891  1.00 20.45       A
      ATOM   1081  CB  ILE A 202      51.352  21.040  20.356  1.00 22.21       A
      ATOM   1082  CG2 ILE A 202      50.381  22.220  20.470  1.00 22.67       A
      ATOM   1083  CG1 ILE A 202      52.033  20.775  21.700  1.00 24.19       A
  10  ATOM   1084  CD1 ILE A 202      52.914  21.920  22.169  1.00 25.39       A
      ATOM   1085  C   ILE A 202      50.105  19.999  18.464  1.00 20.71       A
      ATOM   1086  O   ILE A 202      50.910  20.067  17.538  1.00 19.48       A
      ATOM   1087  N   HIS A 203      48.795  20.108  18.270  1.00 18.65       A
      ATOM   1088  CA  HIS A 203      48.280  20.319  16.919  1.00 18.02       A
  15  ATOM   1089  CB  HIS A 203      46.775  20.057  16.874  1.00 16.31       A
      ATOM   1090  CG  HIS A 203      46.199  20.136  15.495  1.00 18.36       A
      ATOM   1091  CD2 HIS A 203      46.043  21.186  14.655  1.00 16.42       A
      ATOM   1092  ND1 HIS A 203      45.759  19.026  14.806  1.00 19.50       A
      ATOM   1093  CE1 HIS A 203      45.359  19.389  13.600  1.00 17.64       A
  20  ATOM   1094  NE2 HIS A 203      45.522  20.694  13.483  1.00 20.87       A
      ATOM   1095  C   HIS A 203      48.589  21.738  16.405  1.00 18.92       A
      ATOM   1096  O   HIS A 203      49.073  21.906  15.282  1.00 16.21       A
      ATOM   1097  N   ARG A 204      48.301  22.744  17.232  1.00 18.60       A
      ATOM   1098  CA  ARG A 204      48.552  24.157  16.914  1.00 19.81       A
  25  ATOM   1099  CB  ARG A 204      49.998  24.365  16.458  1.00 21.61       A
      ATOM   1100  CG  ARG A 204      51.024  24.137  17.550  1.00 23.82       A
      ATOM   1101  CD  ARG A 204      52.323  24.870  17.252  1.00 27.62       A
      ATOM   1102  NE  ARG A 204      52.932  24.449  15.994  1.00 29.43       A
      ATOM   1103  CZ  ARG A 204      54.125  24.861  15.572  1.00 33.10       A
  30  ATOM   1104  NH1 ARG A 204      54.835  25.706  16.311  1.00 32.12       A
      ATOM   1105  NH2 ARG A 204      54.614  24.426  14.418  1.00 30.25       A
      ATOM   1106  C   ARG A 204      47.624  24.830  15.905  1.00 20.03       A
      ATOM   1107  O   ARG A 204      47.711  26.038  15.698  1.00 20.88       A
      ATOM   1108  N   ASP A 205      46.755  24.071  15.255  1.00 18.96       A
  35  ATOM   1109  CA  ASP A 205      45.828  24.692  14.325  1.00 17.90       A
      ATOM   1110  CB  ASP A 205      46.418  24.741  12.914  1.00 18.95       A
      ATOM   1111  CG  ASP A 205      45.655  25.688  12.008  1.00 20.36       A
      ATOM   1112  OD1 ASP A 205      44.939  26.560  12.545  1.00 20.35       A
      ATOM   1113  OD2 ASP A 205      45.772  25.573  10.771  1.00 22.49       A
  40  ATOM   1114  C   ASP A 205      44.500  23.956  14.328  1.00 19.60       A
      ATOM   1115  O   ASP A 205      43.876  23.751  13.287  1.00 21.53       A
      ATOM   1116  N   LEU A 206      44.063  23.569  15.521  1.00 18.53       A
      ATOM   1117  CA  LEU A 206      42.813  22.851  15.667  1.00 19.18       A
      ATOM   1118  CB  LEU A 206      42.693  22.295  17.087  1.00 18.94       A
  45  ATOM   1119  CG  LEU A 206      41.511  21.358  17.346  1.00 23.10       A
      ATOM   1120  CD1 LEU A 206      41.615  20.142  16.436  1.00 23.01       A
      ATOM   1121  CD2 LEU A 206      41.504  20.933  18.808  1.00 22.97       A
      ATOM   1122  C   LEU A 206      41.639  23.772  15.361  1.00 19.05       A
      ATOM   1123  O   LEU A 206      41.556  24.880  15.886  1.00 19.25       A
  50  ATOM   1124  N   LYS A 207      40.740  23.307  14.500  1.00 17.54       A
      ATOM   1125  CA  LYS A 207      39.564  24.081  14.110  1.00 18.60       A
      ATOM   1126  CB  LYS A 207      39.980  25.248  13.196  1.00 18.98       A
      ATOM   1127  CG  LYS A 207      40.786  24.817  11.982  1.00 18.20       A
      ATOM   1128  CD  LYS A 207      41.246  26.000  11.139  1.00 21.42       A
  55  ATOM   1129  CE  LYS A 207      42.223  25.537  10.062  1.00 23.21       A
      ATOM   1130  NZ  LYS A 207      42.561  26.604   9.084  1.00 29.61       A
      ATOM   1131  C   LYS A 207      38.566  23.181  13.388  1.00 18.18       A
      ATOM   1132  O   LYS A 207      38.921  22.100  12.915  1.00 18.11       A
      ATOM   1133  N   PRO A 208      37.298  23.614  13.293  1.00 20.26       A
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	ATOM	1134	CD	PRO A	208	36.713	24.833	13.882	1.00	18.79	A
	ATOM	1135	CA	PRO A	208	36.272	22.814	12.616	1.00	19.67	A
	ATOM	1136	CB	PRO A	208	35.063	23.742	12.608	1.00	19.45	A
	ATOM	1137	CG	PRO A	208	35.231	24.509	13.891	1.00	21.81	A
5	ATOM	1138	C	PRO A	208	36.674	22.372	11.209	1.00	21.04	A
	ATOM	1139	O	PRO A	208	36.264	21.307	10.751	1.00	21.19	A
	ATOM	1140	N	GLU A	209	37.474	23.188	10.528	1.00	21.69	A
	ATOM	1141	CA	GLU A	209	37.928	22.872	9.170	1.00	22.64	A
	ATOM	1142	CB	GLU	209	38.644	24.084	8.558	0.50	23.65	AC1
10	ATOM	1143	CG	GLU	209	39.253	23.825	7.185	0.50	27.24	AC1
	ATOM	1144	CD	GLU	209	40.155	24.958	6.716	0.50	29.40	AC1
	ATOM	1145	OE1	GLU	209	39.660	26.094	6.553	0.50	29.68	AC1
	ATOM	1146	OE2	GLU	209	41.363	24.711	6.511	0.50	30.07	AC1
	ATOM	1147	C	GLU A	209	38.879	21.668	9.159	1.00	22.28	A
15	ATOM	1148	O	GLU A	209	38.955	20.933	8.170	1.00	21.36	A
	ATOM	1149	N	ASN A	210	39.600	21.490	10.263	1.00	19.90	A
	ATOM	1150	CA	ASN A	210	40.574	20.412	10.436	1.00	19.44	A
	ATOM	1151	CB	ASN A	210	41.744	20.912	11.287	1.00	20.07	A
	ATOM	1152	CG	ASN A	210	42.746	21.698	10.479	1.00	25.77	A
20	ATOM	1153	OD1	ASN A	210	43.571	22.427	11.029	1.00	26.73	A
	ATOM	1154	ND2	ASN A	210	42.687	21.548	9.158	1.00	25.15	A
	ATOM	1155	C	ASN A	210	40.005	19.151	11.078	1.00	18.63	A
	ATOM	1156	O	ASN A	210	40.712	18.154	11.234	1.00	18.29	A
	ATOM	1157	N	ILE A	211	38.739	19.202	11.469	1.00	16.31	A
25	ATOM	1158	CA	ILE A	211	38.090	18.058	12.085	1.00	15.49	A
	ATOM	1159	CB	ILE A	211	37.336	18.488	13.354	1.00	15.40	A
	ATOM	1160	CG2	ILE A	211	36.582	17.311	13.950	1.00	14.59	A
	ATOM	1161	CG1	ILE A	211	38.342	19.046	14.365	1.00	15.91	A
	ATOM	1162	CD1	ILE A	211	37.720	19.669	15.590	1.00	15.98	A
30	ATOM	1163	C	ILE A	211	37.131	17.485	11.059	1.00	17.26	A
	ATOM	1164	O	ILE A	211	35.995	17.947	10.926	1.00	18.16	A
	ATOM	1165	N	LEU A	212	37.599	16.486	10.317	1.00	15.97	A
	ATOM	1166	CA	LEU A	212	36.784	15.875	9.274	1.00	17.08	A
	ATOM	1167	CB	LEU A	212	37.685	15.249	8.202	1.00	17.78	A
35	ATOM	1168	CG	LEU A	212	38.785	16.157	7.640	1.00	18.92	A
	ATOM	1169	CD1	LEU A	212	39.476	15.450	6.485	1.00	22.09	A
	ATOM	1170	CD2	LEU A	212	38.188	17.482	7.166	1.00	19.91	A
	ATOM	1171	C	LEU A	212	35.843	14.825	9.837	1.00	18.35	A
	ATOM	1172	O	LEU A	212	35.957	14.433	11.002	1.00	19.39	A
40	ATOM	1173	N	LEU A	213	34.915	14.368	9.000	1.00	17.84	A
	ATOM	1174	CA	LEU A	213	33.942	13.362	9.403	1.00	19.94	A
	ATOM	1175	CB	LEU A	213	32.556	14.004	9.487	1.00	20.84	A
	ATOM	1176	CG	LEU A	213	32.396	15.059	10.583	1.00	20.31	A
	ATOM	1177	CD1	LEU A	213	31.124	15.837	10.367	1.00	22.75	A
45	ATOM	1178	CD2	LEU A	213	32.379	14.378	11.940	1.00	23.93	A
	ATOM	1179	C	LEU A	213	33.914	12.187	8.426	1.00	20.98	A
	ATOM	1180	O	LEU A	213	33.743	12.379	7.218	1.00	19.55	A
	ATOM	1181	N	ASN A	214	34.088	10.970	8.935	1.00	20.44	A
	ATOM	1182	CA	ASN A	214	34.055	9.814	8.049	1.00	23.77	A
50	ATOM	1183	CB	ASN A	214	34.745	8.596	8.674	1.00	25.30	A
	ATOM	1184	CG	ASN A	214	34.077	8.127	9.948	1.00	32.04	A
	ATOM	1185	OD1	ASN A	214	32.908	8.422	10.206	1.00	34.43	A
	ATOM	1186	ND2	ASN A	214	34.818	7.369	10.752	1.00	33.85	A
	ATOM	1187	C	ASN A	214	32.618	9.466	7.693	1.00	24.07	A
55	ATOM	1188	O	ASN A	214	31.672	10.113	8.150	1.00	19.94	A
	ATOM	1189	N	GLU A	215	32.459	8.433	6.879	1.00	25.77	A
	ATOM	1190	CA	GLU A	215	31.138	8.003	6.445	1.00	28.69	A
	ATOM	1191	CB	GLU A	215	31.275	6.796	5.513	1.00	31.98	A
	ATOM	1192	CG	GLU A	215	29.970	6.334	4.896	1.00	40.22	A

	ATOM	1193	CD	GLU A 215	30.182	5.312	3.795	1.00	44.27	A
	ATOM	1194	OE1	GLU A 215	30.817	4.268	4.065	1.00	46.46	A
	ATOM	1195	OE2	GLU A 215	29.716	5.556	2.660	1.00	46.13	A
	ATOM	1196	C	GLU A 215	30.188	7.673	7.601	1.00	28.41	A
5	ATOM	1197	O	GLU A 215	28.971	7.769	7.447	1.00	28.52	A
	ATOM	1198	N	ASP A 216	30.737	7.287	8.752	1.00	26.77	A
	ATOM	1199	CA	ASP A 216	29.914	6.953	9.917	1.00	27.28	A
	ATOM	1200	CB	ASP A 216	30.538	5.795	10.696	1.00	31.27	A
	ATOM	1201	CG	ASP A 216	30.390	4.466	9.979	1.00	37.61	A
10	ATOM	1202	OD1	ASP A 216	29.274	4.170	9.499	1.00	39.45	A
	ATOM	1203	OD2	ASP A 216	31.382	3.710	9.902	1.00	41.84	A
	ATOM	1204	C	ASP A 216	29.697	8.135	10.862	1.00	26.37	A
	ATOM	1205	O	ASP A 216	29.136	7.984	11.950	1.00	25.73	A
	ATOM	1206	N	MET A 217	30.156	9.306	10.441	1.00	23.02	A
15	ATOM	1207	CA	MET A 217	30.015	10.527	11.218	1.00	21.83	A
	ATOM	1208	CB	MET A 217	28.537	10.789	11.517	1.00	23.24	A
	ATOM	1209	CG	MET A 217	27.742	11.186	10.274	1.00	22.98	A
	ATOM	1210	SD	MET A 217	28.464	12.616	9.430	1.00	27.57	A
	ATOM	1211	CE	MET A 217	27.679	13.974	10.332	1.00	26.68	A
20	ATOM	1212	C	MET A 217	30.844	10.618	12.502	1.00	21.51	A
	ATOM	1213	O	MET A 217	30.474	11.323	13.440	1.00	18.62	A
	ATOM	1214	N	HIS A 218	31.957	9.892	12.544	1.00	20.10	A
	ATOM	1215	CA	HIS A 218	32.873	9.964	13.678	1.00	19.86	A
	ATOM	1216	CB	HIS A 218	33.482	8.594	13.977	1.00	20.21	A
25	ATOM	1217	CG	HIS A 218	32.551	7.667	14.698	1.00	22.40	A
	ATOM	1218	CD2	HIS A 218	31.910	6.547	14.287	1.00	21.27	A
	ATOM	1219	ND1	HIS A 218	32.177	7.863	16.011	1.00	19.59	A
	ATOM	1220	CE1	HIS A 218	31.348	6.902	16.379	1.00	21.88	A
	ATOM	1221	NE2	HIS A 218	31.168	6.091	15.351	1.00	22.08	A
30	ATOM	1222	C	HIS A 218	33.947	10.921	13.172	1.00	19.10	A
	ATOM	1223	O	HIS A 218	34.170	11.004	11.965	1.00	20.31	A
	ATOM	1224	N	ILE A 219	34.617	11.638	14.067	1.00	17.21	A
	ATOM	1225	CA	ILE A 219	35.628	12.586	13.618	1.00	15.26	A
	ATOM	1226	CB	ILE A 219	35.987	13.614	14.716	1.00	15.38	A
35	ATOM	1227	CG2	ILE A 219	34.722	14.305	15.221	1.00	14.58	A
	ATOM	1228	CG1	ILE A 219	36.734	12.919	15.864	1.00	14.46	A
	ATOM	1229	CD1	ILE A 219	37.279	13.885	16.911	1.00	13.74	A
	ATOM	1230	C	ILE A 219	36.929	11.944	13.161	1.00	16.21	A
	ATOM	1231	O	ILE A 219	37.238	10.799	13.500	1.00	15.88	A
40	ATOM	1232	N	GLN A 220	37.677	12.711	12.378	1.00	15.62	A
	ATOM	1233	CA	GLN A 220	38.980	12.316	11.876	1.00	17.84	A
	ATOM	1234	CB	GLN A 220	38.872	11.595	10.525	1.00	20.00	A
	ATOM	1235	CG	GLN A 220	38.463	10.129	10.659	1.00	26.97	A
	ATOM	1236	CD	GLN A 220	38.648	9.343	9.372	1.00	29.95	A
45	ATOM	1237	OE1	GLN A 220	37.968	9.590	8.373	1.00	33.12	A
	ATOM	1238	NE2	GLN A 220	39.578	8.393	9.389	1.00	30.47	A
	ATOM	1239	C	GLN A 220	39.757	13.610	11.735	1.00	17.00	A
	ATOM	1240	O	GLN A 220	39.609	14.339	10.751	1.00	18.27	A
	ATOM	1241	N	ILE A 221	40.566	13.906	12.746	1.00	14.34	A
50	ATOM	1242	CA	ILE A 221	41.361	15.120	12.753	1.00	14.46	A
	ATOM	1243	CB	ILE A 221	41.867	15.416	14.175	1.00	12.30	A
	ATOM	1244	CG2	ILE A 221	42.764	16.656	14.167	1.00	14.78	A
	ATOM	1245	CG1	ILE A 221	40.660	15.613	15.102	1.00	13.92	A
	ATOM	1246	CD1	ILE A 221	41.003	15.901	16.543	1.00	15.06	A
55	ATOM	1247	C	ILE A 221	42.536	14.996	11.783	1.00	15.44	A
	ATOM	1248	O	ILE A 221	43.106	13.915	11.613	1.00	13.93	A
	ATOM	1249	N	THR A 222	42.877	16.101	11.127	1.00	15.36	A
	ATOM	1250	CA	THR A 222	43.980	16.098	10.174	1.00	17.52	A
	ATOM	1251	CB	THR A 222	43.470	15.836	8.750	1.00	19.92	A

	ATOM	1252	OG1	THR	A	222	44.587	15.637	7.875	1.00	18.78	A
	ATOM	1253	CG2	THR	A	222	42.630	17.018	8.257	1.00	18.16	A
	ATOM	1254	C	THR	A	222	44.735	17.428	10.192	1.00	19.60	A
	ATOM	1255	O	THR	A	222	44.509	18.257	11.084	1.00	18.59	A
5	ATOM	1256	N	ASP	A	223	45.630	17.610	9.216	1.00	18.69	A
	ATOM	1257	CA	ASP	A	223	46.440	18.825	9.069	1.00	20.12	A
	ATOM	1258	CB	ASP	A	223	45.532	20.065	9.108	1.00	23.51	A
	ATOM	1259	CG	ASP	A	223	46.248	21.335	8.670	1.00	27.09	A
	ATOM	1260	OD1	ASP	A	223	47.283	21.227	7.975	1.00	26.28	A
10	ATOM	1261	OD2	ASP	A	223	45.765	22.438	9.009	1.00	26.15	A
	ATOM	1262	C	ASP	A	223	47.516	18.913	10.150	1.00	21.73	A
	ATOM	1263	O	ASP	A	223	47.439	19.751	11.055	1.00	22.76	A
	ATOM	1264	N	PHE	A	224	48.535	18.063	10.027	1.00	20.75	A
	ATOM	1265	CA	PHE	A	224	49.611	17.988	11.009	1.00	20.11	A
15	ATOM	1266	CB	PHE	A	224	49.805	16.527	11.424	1.00	20.62	A
	ATOM	1267	CG	PHE	A	224	48.682	15.991	12.263	1.00	21.41	A
	ATOM	1268	CD1	PHE	A	224	48.598	16.312	13.614	1.00	23.05	A
	ATOM	1269	CD2	PHE	A	224	47.681	15.212	11.693	1.00	22.27	A
	ATOM	1270	CE1	PHE	A	224	47.528	15.868	14.389	1.00	23.30	A
20	ATOM	1271	CE2	PHE	A	224	46.606	14.763	12.457	1.00	21.11	A
	ATOM	1272	CZ	PHE	A	224	46.530	15.093	13.807	1.00	22.02	A
	ATOM	1273	C	PHE	A	224	50.957	18.583	10.619	1.00	20.45	A
	ATOM	1274	O	PHE	A	224	51.905	18.547	11.407	1.00	20.73	A
	ATOM	1275	N	GLY	A	225	51.049	19.125	9.412	1.00	22.02	A
25	ATOM	1276	CA	GLY	A	225	52.301	19.713	8.981	1.00	22.66	A
	ATOM	1277	C	GLY	A	225	52.742	20.822	9.920	1.00	24.99	A
	ATOM	1278	O	GLY	A	225	53.939	21.041	10.122	1.00	24.52	A
	ATOM	1279	N	THR	A	226	51.779	21.524	10.508	1.00	23.50	A
	ATOM	1280	CA	THR	A	226	52.106	22.613	11.416	1.00	25.16	A
30	ATOM	1281	CB	THR	A	226	51.199	23.829	11.160	1.00	24.76	A
	ATOM	1282	OG1	THR	A	226	49.831	23.410	11.113	1.00	22.68	A
	ATOM	1283	CG2	THR	A	226	51.571	24.490	9.834	1.00	25.00	A
	ATOM	1284	C	THR	A	226	52.046	22.233	12.894	1.00	25.79	A
	ATOM	1285	O	THR	A	226	52.019	23.100	13.768	1.00	24.54	A
35	ATOM	1286	N	ALA	A	227	52.037	20.935	13.173	1.00	24.97	A
	ATOM	1287	CA	ALA	A	227	52.004	20.475	14.550	1.00	25.49	A
	ATOM	1288	CB	ALA	A	227	51.659	18.993	14.607	1.00	22.85	A
	ATOM	1289	C	ALA	A	227	53.384	20.715	15.149	1.00	27.70	A
	ATOM	1290	O	ALA	A	227	54.331	21.047	14.435	1.00	26.60	A
40	ATOM	1291	N	LYS	A	228	53.491	20.558	16.461	1.00	28.53	A
	ATOM	1292	CA	LYS	A	228	54.760	20.745	17.149	1.00	32.12	A
	ATOM	1293	CB	LYS	A	228	54.699	21.974	18.054	1.00	33.81	A
	ATOM	1294	CG	LYS	A	228	56.007	22.294	18.765	1.00	41.23	A
	ATOM	1295	CD	LYS	A	228	57.082	22.725	17.768	1.00	47.57	A
45	ATOM	1296	CE	LYS	A	228	58.401	23.056	18.462	1.00	49.82	A
	ATOM	1297	NZ	LYS	A	228	59.459	23.425	17.480	1.00	51.49	A
	ATOM	1298	C	LYS	A	228	55.019	19.504	17.985	1.00	33.25	A
	ATOM	1299	O	LYS	A	228	54.190	19.129	18.815	1.00	33.70	A
	ATOM	1300	N	VAL	A	229	56.159	18.860	17.756	1.00	33.64	A
50	ATOM	1301	CA	VAL	A	229	56.516	17.661	18.501	1.00	34.66	A
	ATOM	1302	CB	VAL	A	229	57.248	16.646	17.609	1.00	33.50	A
	ATOM	1303	CG1	VAL	A	229	57.619	15.419	18.415	1.00	32.34	A
	ATOM	1304	CG2	VAL	A	229	56.370	16.264	16.436	1.00	34.25	A
	ATOM	1305	C	VAL	A	229	57.420	18.035	19.668	1.00	37.57	A
55	ATOM	1306	O	VAL	A	229	58.581	18.392	19.474	1.00	35.91	A
	ATOM	1307	N	LEU	A	230	56.877	17.948	20.878	1.00	40.57	A
	ATOM	1308	CA	LEU	A	230	57.615	18.289	22.088	1.00	46.10	A
	ATOM	1309	CB	LEU	A	230	56.654	18.417	23.270	1.00	44.71	A
	ATOM	1310	CG	LEU	A	230	55.627	19.545	23.207	1.00	44.50	A

	ATOM	1311	CD1	LEU A 230	54.673	19.430	24.383	1.00	44.39	A
	ATOM	1312	CD2	LEU A 230	56.340	20.885	23.214	1.00	44.81	A
	ATOM	1313	C	LEU A 230	58.695	17.279	22.440	1.00	50.42	A
	ATOM	1314	O	LEU A 230	58.603	16.104	22.089	1.00	51.64	A
5	ATOM	1315	N	SER A 231	59.717	17.756	23.145	1.00	55.81	A
	ATOM	1316	CA	SER A 231	60.824	16.914	23.583	1.00	61.14	A
	ATOM	1317	CB	SER A 231	62.077	17.200	22.750	1.00	61.27	A
	ATOM	1318	OG	SER A 231	62.444	18.568	22.823	1.00	62.85	A
	ATOM	1319	C	SER A 231	61.124	17.126	25.071	1.00	64.65	A
10	ATOM	1320	O	SER A 231	61.392	16.164	25.794	1.00	65.70	A
	ATOM	1321	N	PRO A 232	61.081	18.387	25.549	1.00	67.54	A
	ATOM	1322	CD	PRO A 232	60.854	19.651	24.823	1.00	68.60	A
	ATOM	1323	CA	PRO A 232	61.358	18.655	26.966	1.00	68.74	A
	ATOM	1324	CB	PRO A 232	61.109	20.158	27.086	1.00	68.83	A
15	ATOM	1325	CG	PRO A 232	61.505	20.666	25.737	1.00	68.96	A
	ATOM	1326	C	PRO A 232	60.460	17.846	27.899	1.00	69.17	A
	ATOM	1327	O	PRO A 232	59.335	17.494	27.541	1.00	69.94	A
	ATOM	1328	N	ALA A 237	57.424	23.198	27.637	1.00	80.06	A
	ATOM	1329	CA	ALA A 237	56.783	23.047	26.335	1.00	79.29	A
20	ATOM	1330	CB	ALA A 237	55.275	22.907	26.512	1.00	78.64	A
	ATOM	1331	C	ALA A 237	57.092	24.239	25.433	1.00	79.07	A
	ATOM	1332	O	ALA A 237	56.250	25.113	25.249	1.00	79.47	A
	ATOM	1333	N	ALA A 238	58.297	24.280	24.871	1.00	78.57	A
	ATOM	1334	CA	ALA A 238	58.683	25.383	23.992	1.00	78.50	A
25	ATOM	1335	CB	ALA A 238	60.186	25.347	23.728	1.00	78.50	A
	ATOM	1336	C	ALA A 238	57.920	25.327	22.673	1.00	78.15	A
	ATOM	1337	O	ALA A 238	57.243	24.341	22.375	1.00	77.96	A
	ATOM	1338	N	ALA A 239	58.027	26.393	21.887	1.00	77.28	A
	ATOM	1339	CA	ALA A 239	57.338	26.452	20.603	1.00	76.27	A
30	ATOM	1340	CB	ALA A 239	55.849	26.489	20.827	1.00	76.61	A
	ATOM	1341	C	ALA A 239	57.766	27.667	19.793	1.00	75.38	A
	ATOM	1342	O	ALA A 239	58.955	27.955	19.700	1.00	75.89	A
	ATOM	1343	N	ASN A 240	56.781	28.357	19.214	1.00	73.95	A
	ATOM	1344	CA	ASN A 240	56.967	29.553	18.389	1.00	71.07	A
35	ATOM	1345	CB	ASN A 240	58.151	30.400	18.874	1.00	71.47	A
	ATOM	1346	CG	ASN A 240	59.459	30.055	18.174	1.00	72.06	A
	ATOM	1347	OD1	ASN A 240	59.575	30.149	16.943	1.00	72.03	A
	ATOM	1348	ND2	ASN A 240	60.470	29.665	18.964	1.00	71.91	A
	ATOM	1349	C	ASN A 240	57.188	29.178	16.928	1.00	69.41	A
40	ATOM	1350	O	ASN A 240	57.480	28.024	16.624	1.00	70.09	A
	ATOM	1351	N	ALA A 241	57.055	30.165	16.038	1.00	66.62	A
	ATOM	1352	CA	ALA A 241	57.246	30.013	14.585	1.00	63.94	A
	ATOM	1353	C	ALA A 241	55.952	30.080	13.772	1.00	60.63	A
	ATOM	1354	O	ALA A 241	55.840	30.880	12.845	1.00	61.29	A
45	ATOM	1355	CB	ALA A 241	57.979	28.704	14.246	1.00	65.23	A
	ATOM	1356	N	PHE A 242	54.984	29.236	14.113	1.00	56.72	A
	ATOM	1357	CA	PHE A 242	53.712	29.196	13.394	1.00	52.53	A
	ATOM	1358	CB	PHE A 242	53.419	27.767	12.923	1.00	49.14	A
	ATOM	1359	CG	PHE A 242	52.040	27.590	12.354	1.00	47.38	A
50	ATOM	1360	CD1	PHE A 242	51.731	28.067	11.085	1.00	47.69	A
	ATOM	1361	CD2	PHE A 242	51.038	26.975	13.102	1.00	45.45	A
	ATOM	1362	CE1	PHE A 242	50.445	27.937	10.565	1.00	46.75	A
	ATOM	1363	CE2	PHE A 242	49.751	26.840	12.594	1.00	45.41	A
	ATOM	1364	CZ	PHE A 242	49.453	27.323	11.322	1.00	46.55	A
55	ATOM	1365	C	PHE A 242	52.534	29.688	14.229	1.00	50.08	A
	ATOM	1366	O	PHE A 242	52.502	29.505	15.444	1.00	49.86	A
	ATOM	1367	N	VAL A 243	51.566	30.305	13.557	1.00	47.67	A
	ATOM	1368	CA	VAL A 243	50.355	30.809	14.200	1.00	46.21	A
	ATOM	1369	CB	VAL A 243	50.340	32.352	14.258	1.00	47.36	A

	ATOM	1370	CG1	VAL	A	243	49.012	32.844	14.825	1.00 47.54	A
	ATOM	1371	CG2	VAL	A	243	51.497	32.842	15.109	1.00 48.50	A
	ATOM	1372	C	VAL	A	243	49.150	30.342	13.389	1.00 44.12	A
	ATOM	1373	O	VAL	A	243	48.956	30.765	12.247	1.00 44.46	A
5	ATOM	1374	N	GLY	A	244	48.348	29.467	13.985	1.00 40.48	A
	ATOM	1375	CA	GLY	A	244	47.176	28.941	13.306	1.00 37.65	A
	ATOM	1376	C	GLY	A	244	46.101	29.960	12.964	1.00 35.39	A
	ATOM	1377	O	GLY	A	244	46.313	31.168	13.065	1.00 35.92	A
	ATOM	1378	N	THR	A	245	44.936	29.463	12.560	1.00 33.30	A
10	ATOM	1379	CA	THR	A	245	43.813	30.312	12.184	1.00 30.20	A
	ATOM	1380	CB	THR	A	245	42.593	29.450	11.829	1.00 32.00	A
	ATOM	1381	OG1	THR	A	245	42.952	28.573	10.755	1.00 32.81	A
	ATOM	1382	CG2	THR	A	245	41.419	30.319	11.390	1.00 28.34	A
	ATOM	1383	C	THR	A	245	43.476	31.296	13.296	1.00 27.96	A
15	ATOM	1384	O	THR	A	245	43.212	30.907	14.434	1.00 25.46	A
	ATOM	1385	N	ALA	A	246	43.486	32.576	12.938	1.00 25.22	A
	ATOM	1386	CA	ALA	A	246	43.247	33.675	13.867	1.00 23.27	A
	ATOM	1387	CB	ALA	A	246	42.956	34.955	13.082	1.00 22.94	A
	ATOM	1388	C	ALA	A	246	42.178	33.475	14.934	1.00 21.27	A
20	ATOM	1389	O	ALA	A	246	42.431	33.705	16.114	1.00 20.93	A
	ATOM	1390	N	GLN	A	247	40.988	33.047	14.536	1.00 19.67	A
	ATOM	1391	CA	GLN	A	247	39.911	32.886	15.504	1.00 20.17	A
	ATOM	1392	CB	GLN		247	38.608	32.535	14.779	0.50 21.89	AC1
	ATOM	1393	CG	GLN		247	38.522	33.076	13.355	0.50 26.18	AC1
25	ATOM	1394	CD	GLN		247	37.220	33.794	13.064	0.50 27.30	AC1
	ATOM	1395	OE1	GLN		247	36.172	33.447	13.605	0.50 30.13	AC1
	ATOM	1396	NE2	GLN		247	37.278	34.792	12.189	0.50 28.70	AC1
	ATOM	1397	C	GLN	A	247	40.181	31.849	16.595	1.00 19.43	A
	ATOM	1398	O	GLN	A	247	39.546	31.883	17.648	1.00 18.93	A
30	ATOM	1399	N	TYR	A	248	41.132	30.948	16.359	1.00 18.60	A
	ATOM	1400	CA	TYR	A	248	41.441	29.896	17.329	1.00 19.20	A
	ATOM	1401	CB	TYR	A	248	41.333	28.529	16.642	1.00 17.53	A
	ATOM	1402	CG	TYR	A	248	40.013	28.362	15.927	1.00 19.32	A
	ATOM	1403	CD1	TYR	A	248	38.859	28.010	16.625	1.00 17.69	A
35	ATOM	1404	CE1	TYR	A	248	37.617	27.976	15.990	1.00 18.18	A
	ATOM	1405	CD2	TYR	A	248	39.897	28.664	14.569	1.00 16.87	A
	ATOM	1406	CE2	TYR	A	248	38.665	28.635	13.924	1.00 19.17	A
	ATOM	1407	CZ	TYR	A	248	37.527	28.295	14.643	1.00 19.46	A
	ATOM	1408	OH	TYR	A	248	36.299	28.311	14.023	1.00 18.98	A
40	ATOM	1409	C	TYR	A	248	42.810	30.039	17.993	1.00 20.42	A
	ATOM	1410	O	TYR	A	248	43.208	29.191	18.792	1.00 19.19	A
	ATOM	1411	N	VAL	A	249	43.523	31.114	17.673	1.00 20.20	A
	ATOM	1412	CA	VAL	A	249	44.841	31.343	18.251	1.00 20.91	A
	ATOM	1413	CB	VAL	A	249	45.542	32.532	17.570	1.00 21.18	A
45	ATOM	1414	CG1	VAL	A	249	46.821	32.896	18.317	1.00 22.45	A
	ATOM	1415	CG2	VAL	A	249	45.862	32.170	16.139	1.00 24.01	A
	ATOM	1416	C	VAL	A	249	44.764	31.606	19.750	1.00 21.52	A
	ATOM	1417	O	VAL	A	249	43.915	32.368	20.216	1.00 22.72	A
	ATOM	1418	N	SER	A	250	45.654	30.965	20.503	1.00 20.70	A
50	ATOM	1419	CA	SER	A	250	45.697	31.133	21.951	1.00 21.65	A
	ATOM	1420	CB	SER	A	250	46.370	29.919	22.613	1.00 22.02	A
	ATOM	1421	OG	SER	A	250	47.692	29.725	22.132	1.00 22.12	A
	ATOM	1422	C	SER	A	250	46.476	32.402	22.280	1.00 22.13	A
	ATOM	1423	O	SER	A	250	47.332	32.828	21.511	1.00 22.77	A
55	ATOM	1424	N	PRO	A	251	46.180	33.029	23.425	1.00 22.23	A
	ATOM	1425	CD	PRO	A	251	45.163	32.684	24.433	1.00 22.97	A
	ATOM	1426	CA	PRO	A	251	46.893	34.254	23.800	1.00 22.52	A
	ATOM	1427	CB	PRO	A	251	46.233	34.650	25.127	1.00 23.06	A
	ATOM	1428	CG	PRO	A	251	45.726	33.329	25.676	1.00 22.55	A

	ATOM	1429	C	PRO	A	251	48.414	34.115	23.907	1.00	22.15	A
	ATOM	1430	O	PRO	A	251	49.143	35.047	23.563	1.00	22.62	A
	ATOM	1431	N	GLU	A	252	48.901	32.966	24.367	1.00	20.69	A
	ATOM	1432	CA	GLU	A	252	50.347	32.772	24.500	1.00	21.40	A
5	ATOM	1433	CB	GLU	A	252	50.673	31.382	25.071	1.00	20.59	A
	ATOM	1434	CG	GLU	A	252	49.993	30.232	24.352	1.00	21.91	A
	ATOM	1435	CD	GLU	A	252	48.691	29.822	25.014	1.00	21.51	A
	ATOM	1436	OE1	GLU	A	252	47.989	30.707	25.550	1.00	21.46	A
	ATOM	1437	OE2	GLU	A	252	48.367	28.613	24.993	1.00	20.23	A
10	ATOM	1438	C	GLU	A	252	51.071	32.970	23.167	1.00	22.99	A
	ATOM	1439	O	GLU	A	252	52.191	33.480	23.136	1.00	23.17	A
	ATOM	1440	N	LEU	A	253	50.441	32.576	22.064	1.00	23.00	A
	ATOM	1441	CA	LEU	A	253	51.068	32.753	20.758	1.00	25.62	A
	ATOM	1442	CB	LEU	A	253	50.277	32.029	19.669	1.00	26.75	A
15	ATOM	1443	CG	LEU	A	253	50.743	30.620	19.296	1.00	31.87	A
	ATOM	1444	CD1	LEU	A	253	50.433	29.651	20.422	1.00	31.81	A
	ATOM	1445	CD2	LEU	A	253	50.044	30.179	18.015	1.00	31.86	A
	ATOM	1446	C	LEU	A	253	51.201	34.228	20.371	1.00	26.94	A
	ATOM	1447	O	LEU	A	253	52.107	34.601	19.626	1.00	27.09	A
20	ATOM	1448	N	LEU	A	254	50.297	35.059	20.877	1.00	25.83	A
	ATOM	1449	CA	LEU	A	254	50.297	36.485	20.564	1.00	27.26	A
	ATOM	1450	CB	LEU	A	254	48.858	37.006	20.564	1.00	25.84	A
	ATOM	1451	CG	LEU	A	254	47.882	36.290	19.621	1.00	24.69	A
	ATOM	1452	CD1	LEU	A	254	46.459	36.724	19.932	1.00	23.64	A
25	ATOM	1453	CD2	LEU	A	254	48.236	36.597	18.177	1.00	24.24	A
	ATOM	1454	C	LEU	A	254	51.134	37.314	21.537	1.00	30.62	A
	ATOM	1455	O	LEU	A	254	51.633	38.383	21.187	1.00	32.35	A
	ATOM	1456	N	THR	A	255	51.292	36.821	22.758	1.00	32.47	A
	ATOM	1457	CA	THR	A	255	52.056	37.547	23.759	1.00	36.70	A
30	ATOM	1458	CB	THR	A	255	51.368	37.478	25.127	1.00	34.51	A
	ATOM	1459	OG1	THR	A	255	51.188	36.106	25.494	1.00	35.49	A
	ATOM	1460	CG2	THR	A	255	50.013	38.166	25.077	1.00	33.40	A
	ATOM	1461	C	THR	A	255	53.477	37.035	23.910	1.00	40.09	A
	ATOM	1462	O	THR	A	255	54.430	37.793	23.772	1.00	43.69	A
35	ATOM	1463	N	GLU	A	256	53.617	35.747	24.189	1.00	44.77	A
	ATOM	1464	CA	GLU	A	256	54.932	35.144	24.382	1.00	49.15	A
	ATOM	1465	CB	GLU	A	256	54.866	34.143	25.534	1.00	51.24	A
	ATOM	1466	CG	GLU	A	256	54.514	34.786	26.862	1.00	56.03	A
	ATOM	1467	CD	GLU	A	256	54.053	33.780	27.893	1.00	58.83	A
40	ATOM	1468	OE1	GLU	A	256	54.766	32.776	28.107	1.00	62.13	A
	ATOM	1469	OE2	GLU	A	256	52.979	33.996	28.494	1.00	60.34	A
	ATOM	1470	C	GLU	A	256	55.475	34.456	23.137	1.00	50.09	A
	ATOM	1471	O	GLU	A	256	56.616	33.995	23.127	1.00	50.42	A
	ATOM	1472	N	LYS	A	257	54.658	34.389	22.090	1.00	51.21	A
45	ATOM	1473	CA	LYS	A	257	55.064	33.746	20.845	1.00	51.22	A
	ATOM	1474	CB	LYS	A	257	56.244	34.502	20.227	1.00	53.28	A
	ATOM	1475	CG	LYS	A	257	56.558	34.125	18.790	1.00	55.19	A
	ATOM	1476	CD	LYS	A	257	57.709	34.961	18.253	1.00	57.52	A
	ATOM	1477	CE	LYS	A	257	57.952	34.694	16.777	1.00	58.52	A
50	ATOM	1478	NZ	LYS	A	257	58.290	33.268	16.515	1.00	60.88	A
	ATOM	1479	C	LYS	A	257	55.467	32.302	21.138	1.00	50.74	A
	ATOM	1480	O	LYS	A	257	56.432	31.790	20.577	1.00	52.26	A
	ATOM	1481	N	SER	A	258	54.721	31.654	22.027	1.00	48.07	A
	ATOM	1482	CA	SER	A	258	54.999	30.273	22.402	1.00	46.87	A
55	ATOM	1483	CB	SER	A	258	55.590	30.229	23.812	1.00	48.88	A
	ATOM	1484	OG	SER	A	258	54.741	30.892	24.734	1.00	53.14	A
	ATOM	1485	C	SER	A	258	53.735	29.415	22.342	1.00	44.07	A
	ATOM	1486	O	SER	A	258	52.617	29.932	22.417	1.00	44.17	A
	ATOM	1487	N	ALA	A	259	53.917	28.105	22.204	1.00	38.30	A

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      ATOM  1488  CA  ALA A 259      52.793  27.180  22.127  1.00 34.73       A
      ATOM  1489  CB  ALA A 259      52.551  26.779  20.684  1.00 34.16       A
      ATOM  1490  C   ALA A 259      53.042  25.940  22.977  1.00 32.34       A
      ATOM  1491  O   ALA A 259      54.172  25.459  23.086  1.00 31.81       A
  5   ATOM  1492  N   CYS A 260      51.975  25.428  23.579  1.00 28.58       A
      ATOM  1493  CA  CYS A 260      52.056  24.244  24.425  1.00 26.27       A
      ATOM  1494  CB  CYS A 260      52.183  24.654  25.892  1.00 26.53       A
      ATOM  1495  SG  CYS A 260      50.846  25.739  26.469  1.00 32.91       A
      ATOM  1496  C   CYS A 260      50.786  23.435  24.224  1.00 22.83       A
 10   ATOM  1497  O   CYS A 260      49.892  23.856  23.495  1.00 22.14       A
      ATOM  1498  N   LYS A 261      50.706  22.277  24.868  1.00 20.02       A
      ATOM  1499  CA  LYS A 261      49.526  21.434  24.744  1.00 20.65       A
      ATOM  1500  CB  LYS A 261      49.619  20.243  25.696  1.00 23.28       A
      ATOM  1501  CG  LYS A 261      50.716  19.253  25.347  1.00 27.44       A
 15   ATOM  1502  CD  LYS A 261      50.732  18.117  26.350  1.00 29.98       A
      ATOM  1503  CE  LYS A 261      51.922  17.203  26.134  1.00 32.34       A
      ATOM  1504  NZ  LYS A 261      51.940  16.121  27.153  1.00 33.28       A
      ATOM  1505  C   LYS A 261      48.268  22.229  25.062  1.00 19.20       A
      ATOM  1506  O   LYS A 261      47.253  22.092  24.387  1.00 18.08       A
 20   ATOM  1507  N   SER A 262      48.358  23.068  26.089  1.00 16.92       A
      ATOM  1508  CA  SER A 262      47.235  23.883  26.534  1.00 18.13       A
      ATOM  1509  CB  SER A 262      47.644  24.698  27.770  1.00 18.27       A
      ATOM  1510  OG  SER A 262      46.517  25.258  28.421  1.00 22.53       A
      ATOM  1511  C   SER A 262      46.736  24.811  25.424  1.00 16.77       A
 25   ATOM  1512  O   SER A 262      45.591  25.254  25.450  1.00 15.69       A
      ATOM  1513  N   SER A 263      47.595  25.118  24.456  1.00 16.44       A
      ATOM  1514  CA  SER A 263      47.175  25.970  23.347  1.00 16.89       A
      ATOM  1515  CB  SER A 263      48.340  26.228  22.382  1.00 18.49       A
      ATOM  1516  OG  SER A 263      49.402  26.909  23.031  1.00 22.10       A
 30   ATOM  1517  C   SER A 263      46.040  25.257  22.612  1.00 17.79       A
      ATOM  1518  O   SER A 263      45.099  25.898  22.148  1.00 17.57       A
      ATOM  1519  N   ASP A 264      46.119  23.928  22.517  1.00 16.30       A
      ATOM  1520  CA  ASP A 264      45.069  23.166  21.836  1.00 16.72       A
      ATOM  1521  CB  ASP A 264      45.483  21.704  21.620  1.00 15.92       A
 35   ATOM  1522  CG  ASP A 264      46.544  21.539  20.548  1.00 17.93       A
      ATOM  1523  OD1 ASP A 264      46.642  22.412  19.661  1.00 16.78       A
      ATOM  1524  OD2 ASP A 264      47.265  20.515  20.579  1.00 16.64       A
      ATOM  1525  C   ASP A 264      43.773  23.194  22.646  1.00 17.67       A
      ATOM  1526  O   ASP A 264      42.681  23.197  22.076  1.00 18.27       A
 40   ATOM  1527  N   LEU A 265      43.898  23.205  23.974  1.00 15.49       A
      ATOM  1528  CA  LEU A 265      42.730  23.232  24.849  1.00 14.75       A
      ATOM  1529  CB  LEU A 265      43.147  23.038  26.313  1.00 11.38       A
      ATOM  1530  CG  LEU A 265      43.711  21.641  26.621  1.00 14.04       A
      ATOM  1531  CD1 LEU A 265      44.249  21.579  28.052  1.00 13.96       A
 45   ATOM  1532  CD2 LEU A 265      42.619  20.603  26.416  1.00 11.62       A
      ATOM  1533  C   LEU A 265      41.999  24.557  24.675  1.00 15.13       A
      ATOM  1534  O   LEU A 265      40.777  24.620  24.785  1.00 16.75       A
      ATOM  1535  N   TRP A 266      42.746  25.622  24.405  1.00 16.08       A
      ATOM  1536  CA  TRP A 266      42.118  26.918  24.184  1.00 16.96       A
 50   ATOM  1537  CB  TRP A 266      43.176  28.015  24.023  1.00 17.28       A
      ATOM  1538  CG  TRP A 266      42.618  29.326  23.521  1.00 20.54       A
      ATOM  1539  CD2 TRP A 266      42.313  30.490  24.301  1.00 20.07       A
      ATOM  1540  CE2 TRP A 266      41.782  31.459  23.417  1.00 20.46       A
      ATOM  1541  CE3 TRP A 266      42.435  30.810  25.660  1.00 20.68       A
 55   ATOM  1542  CD1 TRP A 266      42.270  29.631  22.231  1.00 19.53       A
      ATOM  1543  NE1 TRP A 266      41.769  30.908  22.163  1.00 19.61       A
      ATOM  1544  CZ2 TRP A 266      41.372  32.727  23.850  1.00 20.90       A
      ATOM  1545  CZ3 TRP A 266      42.026  32.073  26.091  1.00 19.45       A
      ATOM  1546  CH2 TRP A 266      41.501  33.015  25.185  1.00 20.71       A
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	ATOM	1547	C	TRP A 266	41.284	26.795	22.913	1.00 17.22	A
	ATOM	1548	O	TRP A 266	40.139	27.240	22.863	1.00 18.03	A
	ATOM	1549	N	ALA A 267	41.863	26.181	21.886	1.00 17.50	A
	ATOM	1550	CA	ALA A 267	41.155	25.990	20.626	1.00 16.16	A
5	ATOM	1551	CB	ALA A 267	42.050	25.290	19.621	1.00 14.28	A
	ATOM	1552	C	ALA A 267	39.901	25.159	20.891	1.00 16.28	A
	ATOM	1553	O	ALA A 267	38.835	25.436	20.346	1.00 16.46	A
	ATOM	1554	N	LEU A 268	40.031	24.144	21.739	1.00 16.57	A
	ATOM	1555	CA	LEU A 268	38.890	23.299	22.084	1.00 17.03	A
10	ATOM	1556	CB	LEU A 268	39.292	22.260	23.139	1.00 15.35	A
	ATOM	1557	CG	LEU A 268	38.158	21.429	23.754	1.00 19.00	A
	ATOM	1558	CD1	LEU A 268	37.505	20.578	22.678	1.00 16.17	A
	ATOM	1559	CD2	LEU A 268	38.718	20.537	24.881	1.00 17.49	A
	ATOM	1560	C	LEU A 268	37.766	24.179	22.628	1.00 15.72	A
15	ATOM	1561	O	LEU A 268	36.603	24.031	22.247	1.00 15.28	A
	ATOM	1562	N	GLY A 269	38.119	25.099	23.520	1.00 14.34	A
	ATOM	1563	CA	GLY A 269	37.124	25.989	24.092	1.00 13.39	A
	ATOM	1564	C	GLY A 269	36.406	26.808	23.031	1.00 14.94	A
	ATOM	1565	O	GLY A 269	35.193	27.014	23.114	1.00 14.76	A
20	ATOM	1566	N	CYS A 270	37.146	27.279	22.030	1.00 13.86	A
	ATOM	1567	CA	CYS A 270	36.539	28.061	20.958	1.00 16.80	A
	ATOM	1568	CB	CYS A 270	37.611	28.634	20.023	1.00 15.97	A
	ATOM	1569	SG	CYS A 270	38.751	29.810	20.780	1.00 20.48	A
	ATOM	1570	C	CYS A 270	35.598	27.175	20.140	1.00 17.50	A
25	ATOM	1571	O	CYS A 270	34.516	27.604	19.741	1.00 18.38	A
	ATOM	1572	N	ILE A 271	36.022	25.939	19.887	1.00 16.99	A
	ATOM	1573	CA	ILE A 271	35.221	25.004	19.104	1.00 16.66	A
	ATOM	1574	CB	ILE A 271	36.038	23.741	18.778	1.00 16.53	A
	ATOM	1575	CG2	ILE A 271	35.155	22.694	18.102	1.00 16.34	A
30	ATOM	1576	CG1	ILE A 271	37.222	24.129	17.882	1.00 15.59	A
	ATOM	1577	CD1	ILE A 271	38.239	23.018	17.690	1.00 14.88	A
	ATOM	1578	C	ILE A 271	33.920	24.626	19.809	1.00 16.74	A
	ATOM	1579	O	ILE A 271	32.865	24.576	19.179	1.00 17.12	A
	ATOM	1580	N	ILE A 272	33.990	24.357	21.111	1.00 16.13	A
35	ATOM	1581	CA	ILE A 272	32.785	24.021	21.862	1.00 18.30	A
	ATOM	1582	CB	ILE A 272	33.097	23.747	23.346	1.00 17.77	A
	ATOM	1583	CG2	ILE A 272	31.796	23.666	24.152	1.00 17.96	A
	ATOM	1584	CG1	ILE A 272	33.877	22.437	23.481	1.00 19.55	A
	ATOM	1585	CD1	ILE A 272	34.446	22.217	24.886	1.00 18.64	A
40	ATOM	1586	C	ILE A 272	31.824	25.207	21.776	1.00 19.51	A
	ATOM	1587	O	ILE A 272	30.624	25.037	21.554	1.00 20.44	A
	ATOM	1588	N	TYR A 273	32.362	26.409	21.947	1.00 18.52	A
	ATOM	1589	CA	TYR A 273	31.553	27.615	21.881	1.00 20.48	A
	ATOM	1590	CB	TYR A 273	32.418	28.847	22.162	1.00 18.98	A
45	ATOM	1591	CG	TYR A 273	31.663	30.161	22.125	1.00 20.26	A
	ATOM	1592	CD1	TYR A 273	31.229	30.709	20.916	1.00 20.67	A
	ATOM	1593	CE1	TYR A 273	30.536	31.917	20.880	1.00 20.98	A
	ATOM	1594	CD2	TYR A 273	31.383	30.857	23.302	1.00 19.82	A
	ATOM	1595	CE2	TYR A 273	30.691	32.062	23.280	1.00 20.62	A
50	ATOM	1596	CZ	TYR A 273	30.271	32.587	22.067	1.00 21.15	A
	ATOM	1597	OH	TYR A 273	29.588	33.776	22.049	1.00 21.86	A
	ATOM	1598	C	TYR A 273	30.902	27.730	20.507	1.00 21.54	A
	ATOM	1599	O	TYR A 273	29.719	28.049	20.401	1.00 22.80	A
	ATOM	1600	N	GLN A 274	31.676	27.454	19.461	1.00 21.05	A
55	ATOM	1601	CA	GLN A 274	31.176	27.538	18.095	1.00 21.48	A
	ATOM	1602	CB	GLN A 274	32.323	27.341	17.097	1.00 21.41	A
	ATOM	1603	CG	GLN A 274	31.934	27.596	15.645	1.00 23.15	A
	ATOM	1604	CD	GLN A 274	33.131	27.588	14.706	1.00 24.80	A
	ATOM	1605	OE1	GLN A 274	34.276	27.446	15.139	1.00 22.51	A

	ATOM	1606	NE2	GLN A 274	32.870	27.750	13.413	1.00 22.96	A
	ATOM	1607	C	GLN A 274	30.076	26.517	17.828	1.00 21.51	A
	ATOM	1608	O	GLN A 274	29.123	26.806	17.108	1.00 20.50	A
	ATOM	1609	N	LEU A 275	30.207	25.324	18.403	1.00 21.44	A
5	ATOM	1610	CA	LEU A 275	29.196	24.282	18.208	1.00 20.95	A
	ATOM	1611	CB	LEU A 275	29.645	22.958	18.846	1.00 19.11	A
	ATOM	1612	CG	LEU A 275	30.775	22.182	18.159	1.00 21.43	A
	ATOM	1613	CD1	LEU A 275	31.118	20.936	18.963	1.00 17.64	A
	ATOM	1614	CD2	LEU A 275	30.342	21.795	16.754	1.00 20.34	A
10	ATOM	1615	C	LEU A 275	27.860	24.697	18.815	1.00 21.32	A
	ATOM	1616	O	LEU A 275	26.802	24.461	18.229	1.00 19.75	A
	ATOM	1617	N	VAL A 276	27.921	25.322	19.987	1.00 19.10	A
	ATOM	1618	CA	VAL A 276	26.724	25.750	20.702	1.00 22.47	A
	ATOM	1619	CB	VAL A 276	27.011	25.882	22.217	1.00 20.87	A
15	ATOM	1620	CG1	VAL A 276	25.742	26.291	22.957	1.00 19.68	A
	ATOM	1621	CG2	VAL A 276	27.550	24.558	22.766	1.00 19.43	A
	ATOM	1622	C	VAL A 276	26.127	27.075	20.211	1.00 23.89	A
	ATOM	1623	O	VAL A 276	24.910	27.199	20.070	1.00 24.90	A
	ATOM	1624	N	ALA A 277	26.983	28.062	19.965	1.00 24.56	A
20	ATOM	1625	CA	ALA A 277	26.533	29.374	19.518	1.00 24.72	A
	ATOM	1626	CB	ALA A 277	27.504	30.444	19.999	1.00 24.36	A
	ATOM	1627	C	ALA A 277	26.378	29.458	18.005	1.00 25.76	A
	ATOM	1628	O	ALA A 277	25.577	30.242	17.502	1.00 26.39	A
	ATOM	1629	N	GLY A 278	27.142	28.651	17.280	1.00 25.13	A
25	ATOM	1630	CA	GLY A 278	27.062	28.673	15.834	1.00 25.58	A
	ATOM	1631	C	GLY A 278	28.163	29.524	15.231	1.00 26.50	A
	ATOM	1632	O	GLY A 278	28.374	29.510	14.015	1.00 28.17	A
	ATOM	1633	N	LEU A 279	28.866	30.262	16.086	1.00 24.44	A
	ATOM	1634	CA	LEU A 279	29.962	31.130	15.656	1.00 25.21	A
30	ATOM	1635	CB	LEU A 279	29.468	32.575	15.500	1.00 25.78	A
	ATOM	1636	CG	LEU A 279	28.364	32.899	14.490	1.00 28.17	A
	ATOM	1637	CD1	LEU A 279	27.922	34.344	14.684	1.00 26.60	A
	ATOM	1638	CD2	LEU A 279	28.862	32.670	13.071	1.00 26.52	A
	ATOM	1639	C	LEU A 279	31.093	31.116	16.687	1.00 23.47	A
35	ATOM	1640	O	LEU A 279	30.848	30.994	17.882	1.00 24.44	A
	ATOM	1641	N	PRO A 280	32.349	31.239	16.236	1.00 23.35	A
	ATOM	1642	CD	PRO A 280	32.831	31.404	14.855	1.00 22.26	A
	ATOM	1643	CA	PRO A 280	33.464	31.239	17.189	1.00 23.81	A
	ATOM	1644	CB	PRO A 280	34.692	31.293	16.282	1.00 23.24	A
40	ATOM	1645	CG	PRO A 280	34.189	32.020	15.073	1.00 24.89	A
	ATOM	1646	C	PRO A 280	33.353	32.444	18.137	1.00 22.69	A
	ATOM	1647	O	PRO A 280	32.750	33.457	17.788	1.00 22.11	A
	ATOM	1648	N	PRO A 281	33.939	32.344	19.345	1.00 23.06	A
	ATOM	1649	CD	PRO A 281	34.810	31.223	19.734	1.00 21.37	A
45	ATOM	1650	CA	PRO A 281	33.935	33.375	20.395	1.00 23.67	A
	ATOM	1651	CB	PRO A 281	34.781	32.751	21.509	1.00 24.89	A
	ATOM	1652	CG	PRO A 281	34.749	31.287	21.219	1.00 25.24	A
	ATOM	1653	C	PRO A 281	34.481	34.752	20.017	1.00 23.75	A
	ATOM	1654	O	PRO A 281	33.869	35.781	20.317	1.00 21.02	A
50	ATOM	1655	N	PHE A 282	35.644	34.763	19.379	1.00 22.17	A
	ATOM	1656	CA	PHE A 282	36.293	36.007	18.998	1.00 23.16	A
	ATOM	1657	CB	PHE A 282	37.765	35.943	19.406	1.00 21.01	A
	ATOM	1658	CG	PHE A 282	37.975	35.482	20.822	1.00 22.66	A
	ATOM	1659	CD1	PHE A 282	37.806	36.361	21.888	1.00 20.06	A
55	ATOM	1660	CD2	PHE A 282	38.291	34.151	21.093	1.00 20.72	A
	ATOM	1661	CE1	PHE A 282	37.947	35.921	23.206	1.00 22.66	A
	ATOM	1662	CE2	PHE A 282	38.433	33.702	22.405	1.00 20.97	A
	ATOM	1663	CZ	PHE A 282	38.261	34.590	23.466	1.00 19.58	A
	ATOM	1664	C	PHE A 282	36.169	36.263	17.503	1.00 24.39	A

	ATOM	1665	O	PHE A 282	36.802	35.585	16.694	1.00	25.80	A
	ATOM	1666	N	ARG A 283	35.355	37.248	17.142	1.00	24.99	A
	ATOM	1667	CA	ARG A 283	35.141	37.594	15.741	1.00	26.33	A
	ATOM	1668	CB	ARG A 283	33.721	37.209	15.316	1.00	28.91	A
5	ATOM	1669	CG	ARG A 283	33.293	35.808	15.724	1.00	30.27	A
	ATOM	1670	CD	ARG A 283	31.904	35.493	15.188	1.00	33.36	A
	ATOM	1671	NE	ARG A 283	30.890	36.392	15.733	1.00	32.76	A
	ATOM	1672	CZ	ARG A 283	30.372	36.287	16.952	1.00	34.79	A
	ATOM	1673	NH1	ARG A 283	30.767	35.317	17.768	1.00	35.77	A
10	ATOM	1674	NH2	ARG A 283	29.458	37.156	17.359	1.00	36.12	A
	ATOM	1675	C	ARG A 283	35.328	39.096	15.544	1.00	26.47	A
	ATOM	1676	O	ARG A 283	35.029	39.888	16.438	1.00	26.28	A
	ATOM	1677	N	ALA A 284	35.818	39.486	14.373	1.00	26.70	A
	ATOM	1678	CA	ALA A 284	36.033	40.899	14.079	1.00	27.84	A
15	ATOM	1679	CB	ALA A 284	37.188	41.442	14.914	1.00	26.24	A
	ATOM	1680	C	ALA A 284	36.327	41.077	12.602	1.00	28.35	A
	ATOM	1681	O	ALA A 284	36.560	40.101	11.891	1.00	29.91	A
	ATOM	1682	N	GLY A 285	36.332	42.329	12.153	1.00	29.29	A
	ATOM	1683	CA	GLY A 285	36.577	42.631	10.753	1.00	29.52	A
20	ATOM	1684	C	GLY A 285	37.893	42.156	10.168	1.00	30.12	A
	ATOM	1685	O	GLY A 285	37.974	41.862	8.976	1.00	30.60	A
	ATOM	1686	N	ASN A 286	38.939	42.097	10.983	1.00	28.49	A
	ATOM	1687	CA	ASN A 286	40.231	41.644	10.489	1.00	26.71	A
	ATOM	1688	CB	ASN A 286	41.050	42.825	9.945	1.00	26.11	A
25	ATOM	1689	CG	ASN A 286	41.310	43.900	10.990	1.00	27.83	A
	ATOM	1690	OD1	ASN A 286	41.877	43.631	12.049	1.00	27.84	A
	ATOM	1691	ND2	ASN A 286	40.908	45.131	10.685	1.00	25.95	A
	ATOM	1692	C	ASN A 286	40.997	40.924	11.584	1.00	26.03	A
	ATOM	1693	O	ASN A 286	40.540	40.851	12.723	1.00	25.66	A
30	ATOM	1694	N	GLU A 287	42.162	40.391	11.239	1.00	24.81	A
	ATOM	1695	CA	GLU A 287	42.965	39.662	12.206	1.00	27.59	A
	ATOM	1696	CB	GLU A 287	44.145	38.985	11.510	1.00	30.17	A
	ATOM	1697	CG	GLU A 287	43.776	37.632	10.931	1.00	38.21	A
	ATOM	1698	CD	GLU A 287	44.900	36.998	10.140	1.00	41.86	A
35	ATOM	1699	OE1	GLU A 287	46.061	37.036	10.608	1.00	43.08	A
	ATOM	1700	OE2	GLU A 287	44.612	36.449	9.052	1.00	45.22	A
	ATOM	1701	C	GLU A 287	43.459	40.485	13.383	1.00	25.05	A
	ATOM	1702	O	GLU A 287	43.382	40.030	14.521	1.00	26.41	A
	ATOM	1703	N	TYR A 288	43.966	41.685	13.122	1.00	23.04	A
40	ATOM	1704	CA	TYR A 288	44.460	42.528	14.205	1.00	22.34	A
	ATOM	1705	CB	TYR A 288	44.867	43.913	13.691	1.00	21.07	A
	ATOM	1706	CG	TYR A 288	45.275	44.858	14.805	1.00	21.07	A
	ATOM	1707	CD1	TYR A 288	46.533	44.762	15.405	1.00	21.23	A
	ATOM	1708	CE1	TYR A 288	46.891	45.588	16.475	1.00	20.43	A
45	ATOM	1709	CD2	TYR A 288	44.380	45.809	15.302	1.00	22.32	A
	ATOM	1710	CE2	TYR A 288	44.725	46.637	16.373	1.00	23.28	A
	ATOM	1711	CZ	TYR A 288	45.981	46.518	16.953	1.00	22.96	A
	ATOM	1712	OH	TYR A 288	46.316	47.313	18.024	1.00	23.18	A
	ATOM	1713	C	TYR A 288	43.402	42.698	15.288	1.00	21.38	A
50	ATOM	1714	O	TYR A 288	43.710	42.616	16.473	1.00	22.09	A
	ATOM	1715	N	LEU A 289	42.159	42.939	14.874	1.00	21.88	A
	ATOM	1716	CA	LEU A 289	41.055	43.130	15.811	1.00	21.98	A
	ATOM	1717	CB	LEU A 289	39.821	43.673	15.078	1.00	22.90	A
	ATOM	1718	CG	LEU A 289	39.896	45.130	14.601	1.00	26.52	A
55	ATOM	1719	CD1	LEU A 289	38.706	45.436	13.696	1.00	26.55	A
	ATOM	1720	CD2	LEU A 289	39.914	46.071	15.807	1.00	23.13	A
	ATOM	1721	C	LEU A 289	40.686	41.849	16.560	1.00	21.24	A
	ATOM	1722	O	LEU A 289	40.256	41.897	17.715	1.00	20.72	A
	ATOM	1723	N	ILE A 290	40.843	40.708	15.900	1.00	19.62	A

	ATOM	1724	CA	ILE A 290	40.538	39.433	16.533	1.00 18.54	A
	ATOM	1725	CB	ILE A 290	40.560	38.281	15.509	1.00 18.52	A
	ATOM	1726	CG2	ILE A 290	40.503	36.934	16.234	1.00 17.63	A
	ATOM	1727	CG1	ILE A 290	39.378	38.429	14.545	1.00 18.88	A
5	ATOM	1728	CD1	ILE A 290	39.421	37.483	13.357	1.00 19.81	A
	ATOM	1729	C	ILE A 290	41.578	39.167	17.618	1.00 19.09	A
	ATOM	1730	O	ILE A 290	41.236	38.788	18.737	1.00 18.20	A
	ATOM	1731	N	PHE A 291	42.849	39.376	17.286	1.00 18.76	A
	ATOM	1732	CA	PHE A 291	43.925	39.156	18.247	1.00 20.75	A
10	ATOM	1733	CB	PHE A 291	45.286	39.434	17.606	1.00 20.71	A
	ATOM	1734	CG	PHE A 291	45.644	38.480	16.503	1.00 22.92	A
	ATOM	1735	CD1	PHE A 291	45.065	37.214	16.443	1.00 22.98	A
	ATOM	1736	CD2	PHE A 291	46.588	38.830	15.543	1.00 22.91	A
	ATOM	1737	CE1	PHE A 291	45.423	36.310	15.440	1.00 24.51	A
15	ATOM	1738	CE2	PHE A 291	46.954	37.931	14.535	1.00 25.54	A
	ATOM	1739	CZ	PHE A 291	46.370	36.670	14.485	1.00 23.29	A
	ATOM	1740	C	PHE A 291	43.739	40.061	19.451	1.00 21.72	A
	ATOM	1741	O	PHE A 291	43.992	39.671	20.593	1.00 22.32	A
	ATOM	1742	N	GLN A 292	43.284	41.275	19.178	1.00 23.27	A
20	ATOM	1743	CA	GLN A 292	43.055	42.264	20.216	1.00 24.01	A
	ATOM	1744	CB	GLN A 292	42.574	43.559	19.562	1.00 25.77	A
	ATOM	1745	CG	GLN A 292	42.577	44.773	20.447	1.00 28.45	A
	ATOM	1746	CD	GLN A 292	42.469	46.057	19.638	1.00 29.83	A
	ATOM	1747	OE1	GLN A 292	41.520	46.244	18.872	1.00 27.16	A
25	ATOM	1748	NE2	GLN A 292	43.449	46.944	19.799	1.00 27.61	A
	ATOM	1749	C	GLN A 292	42.018	41.733	21.204	1.00 22.97	A
	ATOM	1750	O	GLN A 292	42.200	41.832	22.415	1.00 21.64	A
	ATOM	1751	N	LYS A 293	40.937	41.154	20.687	1.00 21.82	A
	ATOM	1752	CA	LYS A 293	39.895	40.612	21.558	1.00 22.18	A
30	ATOM	1753	CB	LYS A 293	38.664	40.223	20.740	1.00 22.69	A
	ATOM	1754	CG	LYS A 293	37.919	41.407	20.153	1.00 25.78	A
	ATOM	1755	CD	LYS A 293	36.651	40.961	19.429	1.00 27.88	A
	ATOM	1756	CE	LYS A 293	35.857	42.161	18.926	1.00 30.85	A
	ATOM	1757	NZ	LYS A 293	34.612	41.750	18.214	1.00 32.98	A
35	ATOM	1758	C	LYS A 293	40.398	39.398	22.343	1.00 21.20	A
	ATOM	1759	O	LYS A 293	40.041	39.204	23.509	1.00 22.01	A
	ATOM	1760	N	ILE A 294	41.226	38.583	21.702	1.00 19.91	A
	ATOM	1761	CA	ILE A 294	41.774	37.394	22.347	1.00 20.28	A
	ATOM	1762	CB	ILE A 294	42.631	36.575	21.349	1.00 18.98	A
40	ATOM	1763	CG2	ILE A 294	43.481	35.550	22.098	1.00 17.70	A
	ATOM	1764	CG1	ILE A 294	41.716	35.897	20.318	1.00 17.93	A
	ATOM	1765	CD1	ILE A 294	42.467	35.237	19.178	1.00 16.21	A
	ATOM	1766	C	ILE A 294	42.618	37.727	23.587	1.00 21.94	A
	ATOM	1767	O	ILE A 294	42.366	37.199	24.673	1.00 20.86	A
45	ATOM	1768	N	ILE A 295	43.610	38.600	23.439	1.00 21.88	A
	ATOM	1769	CA	ILE A 295	44.461	38.934	24.582	1.00 24.25	A
	ATOM	1770	CB	ILE A 295	45.668	39.805	24.175	1.00 23.93	A
	ATOM	1771	CG2	ILE A 295	46.514	39.066	23.140	1.00 24.61	A
	ATOM	1772	CG1	ILE A 295	45.189	41.151	23.637	1.00 24.58	A
50	ATOM	1773	CD1	ILE A 295	46.317	42.149	23.433	1.00 26.69	A
	ATOM	1774	C	ILE A 295	43.720	39.636	25.717	1.00 24.80	A
	ATOM	1775	O	ILE A 295	44.214	39.687	26.842	1.00 24.76	A
	ATOM	1776	N	LYS A 296	42.539	40.173	25.425	1.00 25.33	A
	ATOM	1777	CA	LYS A 296	41.743	40.853	26.444	1.00 26.80	A
55	ATOM	1778	CB	LYS A 296	41.178	42.170	25.894	1.00 27.39	A
	ATOM	1779	CG	LYS A 296	42.240	43.141	25.413	1.00 31.79	A
	ATOM	1780	CD	LYS A 296	41.634	44.410	24.826	1.00 35.56	A
	ATOM	1781	CE	LYS A 296	41.009	45.283	25.900	1.00 39.29	A
	ATOM	1782	NZ	LYS A 296	40.564	46.603	25.357	1.00 41.72	A

	ATOM	1783	C	LYS	A	296	40.593	39.958	26.893	1.00	25.50	A
	ATOM	1784	O	LYS	A	296	39.770	40.361	27.713	1.00	24.02	A
	ATOM	1785	N	LEU	A	297	40.550	38.742	26.349	1.00	25.67	A
	ATOM	1786	CA	LEU	A	297	39.500	37.777	26.666	1.00	25.16	A
5	ATOM	1787	CB	LEU	A	297	39.632	37.285	28.111	1.00	24.80	A
	ATOM	1788	CG	LEU	A	297	38.766	36.068	28.460	1.00	26.43	A
	ATOM	1789	CD1	LEU	A	297	39.238	34.852	27.646	1.00	26.70	A
	ATOM	1790	CD2	LEU	A	297	38.856	35.777	29.951	1.00	24.84	A
	ATOM	1791	C	LEU	A	297	38.151	38.459	26.467	1.00	25.11	A
10	ATOM	1792	O	LEU	A	297	37.261	38.378	27.309	1.00	25.28	A
	ATOM	1793	N	GLU	A	298	38.007	39.127	25.331	1.00	24.98	A
	ATOM	1794	CA	GLU	A	298	36.786	39.847	25.023	1.00	25.31	A
	ATOM	1795	CB	GLU	A	298	37.143	41.139	24.291	1.00	27.13	A
	ATOM	1796	CG	GLU	A	298	35.991	42.092	24.108	1.00	31.28	A
15	ATOM	1797	CD	GLU	A	298	36.419	43.362	23.410	1.00	34.40	A
	ATOM	1798	OE1	GLU	A	298	37.348	44.027	23.918	1.00	35.90	A
	ATOM	1799	OE2	GLU	A	298	35.832	43.693	22.359	1.00	36.16	A
	ATOM	1800	C	GLU	A	298	35.766	39.057	24.207	1.00	23.79	A
	ATOM	1801	O	GLU	A	298	35.832	39.017	22.979	1.00	24.35	A
20	ATOM	1802	N	TYR	A	299	34.825	38.427	24.902	1.00	23.45	A
	ATOM	1803	CA	TYR	A	299	33.760	37.663	24.265	1.00	23.98	A
	ATOM	1804	CB	TYR	A	299	34.264	36.304	23.755	1.00	20.13	A
	ATOM	1805	CG	TYR	A	299	34.348	35.233	24.828	1.00	21.17	A
	ATOM	1806	CD1	TYR	A	299	35.336	35.279	25.810	1.00	19.32	A
25	ATOM	1807	CE1	TYR	A	299	35.389	34.332	26.826	1.00	19.30	A
	ATOM	1808	CD2	TYR	A	299	33.410	34.201	24.888	1.00	18.96	A
	ATOM	1809	CE2	TYR	A	299	33.456	33.243	25.907	1.00	19.41	A
	ATOM	1810	CZ	TYR	A	299	34.449	33.321	26.870	1.00	18.79	A
	ATOM	1811	OH	TYR	A	299	34.511	32.401	27.881	1.00	18.77	A
30	ATOM	1812	C	TYR	A	299	32.699	37.437	25.331	1.00	25.20	A
	ATOM	1813	O	TYR	A	299	32.942	37.681	26.506	1.00	26.46	A
	ATOM	1814	N	ASP	A	300	31.522	36.981	24.927	1.00	26.94	A
	ATOM	1815	CA	ASP	A	300	30.467	36.710	25.891	1.00	30.60	A
	ATOM	1816	CB	ASP	A	300	29.665	37.981	26.179	1.00	35.86	A
35	ATOM	1817	CG	ASP	A	300	29.228	38.687	24.923	1.00	42.04	A
	ATOM	1818	OD1	ASP	A	300	28.450	38.088	24.149	1.00	45.98	A
	ATOM	1819	OD2	ASP	A	300	29.666	39.840	24.707	1.00	45.69	A
	ATOM	1820	C	ASP	A	300	29.564	35.608	25.363	1.00	29.26	A
	ATOM	1821	O	ASP	A	300	29.590	35.299	24.172	1.00	28.64	A
40	ATOM	1822	N	PHE	A	301	28.778	35.011	26.253	1.00	28.96	A
	ATOM	1823	CA	PHE	A	301	27.884	33.924	25.871	1.00	30.48	A
	ATOM	1824	CB	PHE	A	301	27.818	32.854	26.968	1.00	29.17	A
	ATOM	1825	CG	PHE	A	301	29.147	32.279	27.356	1.00	29.29	A
	ATOM	1826	CD1	PHE	A	301	29.978	32.949	28.245	1.00	27.31	A
45	ATOM	1827	CD2	PHE	A	301	29.560	31.050	26.845	1.00	27.89	A
	ATOM	1828	CE1	PHE	A	301	31.205	32.403	28.625	1.00	28.83	A
	ATOM	1829	CE2	PHE	A	301	30.781	30.498	27.217	1.00	28.05	A
	ATOM	1830	CZ	PHE	A	301	31.605	31.175	28.110	1.00	28.27	A
	ATOM	1831	C	PHE	A	301	26.459	34.384	25.619	1.00	32.20	A
50	ATOM	1832	O	PHE	A	301	25.946	35.261	26.317	1.00	32.36	A
	ATOM	1833	N	PRO	A	302	25.798	33.804	24.607	1.00	33.29	A
	ATOM	1834	CD	PRO	A	302	26.313	32.943	23.529	1.00	34.04	A
	ATOM	1835	CA	PRO	A	302	24.415	34.199	24.341	1.00	35.24	A
	ATOM	1836	CB	PRO	A	302	24.144	33.608	22.959	1.00	34.01	A
55	ATOM	1837	CG	PRO	A	302	25.041	32.413	22.921	1.00	35.48	A
	ATOM	1838	C	PRO	A	302	23.567	33.561	25.444	1.00	37.39	A
	ATOM	1839	O	PRO	A	302	23.935	32.518	25.986	1.00	38.49	A
	ATOM	1840	N	ALA	A	303	22.447	34.188	25.783	1.00	39.36	A
	ATOM	1841	CA	ALA	A	303	21.572	33.692	26.843	1.00	40.65	A

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        ATOM   1842  CB   ALA A 303      20.280  34.506  26.862  1.00 41.66      A
        ATOM   1843  C    ALA A 303      21.238  32.197  26.814  1.00 41.25      A
        ATOM   1844  O    ALA A 303      21.253  31.537  27.854  1.00 43.16      A
        ATOM   1845  N    ALA A 304      20.945  31.665  25.631  1.00 41.04      A
    5   ATOM   1846  CA   ALA A 304      20.569  30.258  25.480  1.00 40.66      A
        ATOM   1847  CB   ALA A 304      20.121  30.004  24.040  1.00 41.36      A
        ATOM   1848  C    ALA A 304      21.628  29.223  25.876  1.00 39.61      A
        ATOM   1849  O    ALA A 304      21.298  28.156  26.395  1.00 40.61      A
        ATOM   1850  N    PHE A 305      22.891  29.543  25.617  1.00 36.21      A
   10   ATOM   1851  CA   PHE A 305      24.022  28.662  25.909  1.00 32.08      A
        ATOM   1852  CB   PHE A 305      25.259  29.519  26.187  1.00 29.46      A
        ATOM   1853  CG   PHE A 305      26.536  28.917  25.690  1.00 28.15      A
        ATOM   1854  CD1  PHE A 305      27.146  27.875  26.377  1.00 26.20      A
        ATOM   1855  CD2  PHE A 305      27.127  29.386  24.521  1.00 27.05      A
   15   ATOM   1856  CE1  PHE A 305      28.330  27.308  25.908  1.00 26.92      A
        ATOM   1857  CE2  PHE A 305      28.312  28.826  24.042  1.00 26.62      A
        ATOM   1858  CZ   PHE A 305      28.914  27.786  24.737  1.00 26.61      A
        ATOM   1859  C    PHE A 305      23.811  27.664  27.057  1.00 30.09      A
        ATOM   1860  O    PHE A 305      23.518  28.051  28.187  1.00 31.51      A
   20   ATOM   1861  N    PHE A 306      23.964  26.378  26.758  1.00 27.01      A
        ATOM   1862  CA   PHE A 306      23.801  25.334  27.769  1.00 26.30      A
        ATOM   1863  CB   PHE A 306      24.157  23.970  27.170  1.00 25.03      A
        ATOM   1864  CG   PHE A 306      23.548  23.725  25.815  1.00 27.24      A
        ATOM   1865  CD1  PHE A 306      22.170  23.831  25.622  1.00 28.40      A
   25   ATOM   1866  CD2  PHE A 306      24.350  23.386  24.728  1.00 27.84      A
        ATOM   1867  CE1  PHE A 306      21.601  23.603  24.365  1.00 28.05      A
        ATOM   1868  CE2  PHE A 306      23.792  23.155  23.465  1.00 28.31      A
        ATOM   1869  CZ   PHE A 306      22.415  23.263  23.283  1.00 28.00      A
        ATOM   1870  C    PHE A 306      24.711  25.652  28.961  1.00 26.23      A
   30   ATOM   1871  O    PHE A 306      25.927  25.775  28.811  1.00 25.59      A
        ATOM   1872  N    PRO A 307      24.125  25.796  30.163  1.00 26.67      A
        ATOM   1873  CD   PRO A 307      22.685  25.625  30.430  1.00 27.95      A
        ATOM   1874  CA   PRO A 307      24.842  26.110  31.405  1.00 26.59      A
        ATOM   1875  CB   PRO A 307      23.795  25.832  32.481  1.00 26.14      A
   35   ATOM   1876  CG   PRO A 307      22.531  26.250  31.803  1.00 27.86      A
        ATOM   1877  C    PRO A 307      26.145  25.355  31.659  1.00 25.58      A
        ATOM   1878  O    PRO A 307      27.189  25.964  31.900  1.00 22.65      A
        ATOM   1879  N    LYS A 308      26.085  24.031  31.620  1.00 24.46      A
        ATOM   1880  CA   LYS A 308      27.274  23.232  31.867  1.00 23.91      A
   40   ATOM   1881  CB   LYS A 308      26.887  21.760  32.024  1.00 23.25      A
        ATOM   1882  CG   LYS A 308      26.062  21.532  33.285  1.00 28.49      A
        ATOM   1883  CD   LYS A 308      25.618  20.093  33.466  1.00 30.17      A
        ATOM   1884  CE   LYS A 308      24.760  19.973  34.722  1.00 33.12      A
        ATOM   1885  NZ   LYS A 308      24.122  18.636  34.860  1.00 34.13      A
   45   ATOM   1886  C    LYS A 308      28.314  23.426  30.769  1.00 22.84      A
        ATOM   1887  O    LYS A 308      29.514  23.411  31.042  1.00 22.46      A
        ATOM   1888  N    ALA A 309      27.861  23.621  29.534  1.00 21.59      A
        ATOM   1889  CA   ALA A 309      28.792  23.848  28.432  1.00 20.02      A
        ATOM   1890  CB   ALA A 309      28.056  23.856  27.106  1.00 18.80      A
   50   ATOM   1891  C    ALA A 309      29.481  25.191  28.662  1.00 21.41      A
        ATOM   1892  O    ALA A 309      30.680  25.335  28.427  1.00 21.39      A
        ATOM   1893  N    ARG A 310      28.717  26.179  29.121  1.00 21.39      A
        ATOM   1894  CA   ARG A 310      29.290  27.494  29.388  1.00 22.02      A
        ATOM   1895  CB   ARG A 310      28.213  28.479  29.854  1.00 22.39      A
   55   ATOM   1896  CG   ARG A 310      28.806  29.756  30.436  1.00 25.30      A
        ATOM   1897  CD   ARG A 310      27.780  30.852  30.664  1.00 28.33      A
        ATOM   1898  NE   ARG A 310      28.420  32.039  31.230  1.00 30.18      A
        ATOM   1899  CZ   ARG A 310      27.901  33.263  31.203  1.00 32.07      A
        ATOM   1900  NH1  ARG A 310      26.719  33.477  30.634  1.00 31.19      A
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	ATOM	1901	NH2	ARG	A	310	28.567	34.277	31.742	1.00 30.49	A
	ATOM	1902	C	ARG	A	310	30.376	27.388	30.458	1.00 21.65	A
	ATOM	1903	O	ARG	A	310	31.464	27.949	30.311	1.00 20.36	A
	ATOM	1904	N	ASP	A	311	30.074	26.677	31.541	1.00 19.57	A
5	ATOM	1905	CA	ASP	A	311	31.043	26.512	32.615	1.00 20.18	A
	ATOM	1906	CB	ASP	A	311	30.460	25.649	33.739	1.00 20.39	A
	ATOM	1907	CG	ASP	A	311	31.439	25.446	34.881	1.00 23.35	A
	ATOM	1908	OD1	ASP	A	311	32.158	24.428	34.885	1.00 24.91	A
	ATOM	1909	OD2	ASP	A	311	31.500	26.312	35.776	1.00 26.96	A
10	ATOM	1910	C	ASP	A	311	32.322	25.877	32.073	1.00 19.73	A
	ATOM	1911	O	ASP	A	311	33.422	26.289	32.439	1.00 19.30	A
	ATOM	1912	N	LEU	A	312	32.179	24.891	31.188	1.00 16.32	A
	ATOM	1913	CA	LEU	A	312	33.349	24.226	30.611	1.00 16.66	A
	ATOM	1914	CB	LEU	A	312	32.927	23.035	29.744	1.00 16.12	A
15	ATOM	1915	CG	LEU	A	312	34.050	22.320	28.974	1.00 14.73	A
	ATOM	1916	CD1	LEU	A	312	35.192	21.935	29.912	1.00 14.56	A
	ATOM	1917	CD2	LEU	A	312	33.477	21.084	28.289	1.00 14.22	A
	ATOM	1918	C	LEU	A	312	34.181	25.189	29.774	1.00 16.61	A
	ATOM	1919	O	LEU	A	312	35.402	25.241	29.910	1.00 16.20	A
20	ATOM	1920	N	VAL	A	313	33.515	25.949	28.908	1.00 16.20	A
	ATOM	1921	CA	VAL	A	313	34.207	26.907	28.058	1.00 15.37	A
	ATOM	1922	CB	VAL	A	313	33.216	27.648	27.130	1.00 16.42	A
	ATOM	1923	CG1	VAL	A	313	33.915	28.796	26.426	1.00 16.93	A
	ATOM	1924	CG2	VAL	A	313	32.644	26.672	26.103	1.00 17.88	A
25	ATOM	1925	C	VAL	A	313	34.960	27.923	28.911	1.00 17.39	A
	ATOM	1926	O	VAL	A	313	36.093	28.294	28.591	1.00 18.00	A
	ATOM	1927	N	GLU	A	314	34.342	28.364	30.004	1.00 17.61	A
	ATOM	1928	CA	GLU	A	314	34.986	29.331	30.885	1.00 20.43	A
	ATOM	1929	CB	GLU	A	314	34.009	29.816	31.959	1.00 22.14	A
30	ATOM	1930	CG	GLU	A	314	32.800	30.550	31.396	1.00 26.52	A
	ATOM	1931	CD	GLU	A	314	31.852	31.025	32.478	1.00 31.26	A
	ATOM	1932	OE1	GLU	A	314	31.580	30.246	33.417	1.00 33.48	A
	ATOM	1933	OE2	GLU	A	314	31.370	32.173	32.387	1.00 34.81	A
	ATOM	1934	C	GLU	A	314	36.217	28.721	31.539	1.00 19.15	A
35	ATOM	1935	O	GLU	A	314	37.134	29.433	31.934	1.00 21.47	A
	ATOM	1936	N	LYS	A	315	36.245	27.400	31.651	1.00 19.51	A
	ATOM	1937	CA	LYS	A	315	37.394	26.749	32.258	1.00 19.17	A
	ATOM	1938	CB	LYS	A	315	36.946	25.514	33.043	1.00 18.84	A
	ATOM	1939	CG	LYS	A	315	36.280	25.885	34.368	1.00 19.62	A
40	ATOM	1940	CD	LYS	A	315	35.653	24.696	35.073	1.00 19.22	A
	ATOM	1941	CE	LYS		315	35.070	25.095	36.427	0.50 21.00	AC1
	ATOM	1942	NZ	LYS		315	36.119	25.552	37.381	0.50 19.53	AC1
	ATOM	1943	C	LYS		315	38.452	26.393	31.218	1.00 18.96	A
	ATOM	1944	O	LYS	A	315	39.511	25.873	31.561	1.00 19.85	A
45	ATOM	1945	N	LEU	A	316	38.164	26.691	29.950	1.00 17.08	A
	ATOM	1946	CA	LEU	A	316	39.102	26.429	28.854	1.00 16.41	A
	ATOM	1947	CB	LEU	A	316	38.414	25.636	27.738	1.00 13.81	A
	ATOM	1948	CG	LEU	A	316	38.028	24.201	28.115	1.00 14.39	A
	ATOM	1949	CD1	LEU	A	316	37.139	23.597	27.031	1.00 12.38	A
50	ATOM	1950	CD2	LEU	A	316	39.302	23.373	28.309	1.00 12.77	A
	ATOM	1951	C	LEU	A	316	39.652	27.743	28.290	1.00 17.12	A
	ATOM	1952	O	LEU	A	316	40.851	27.860	28.023	1.00 16.53	A
	ATOM	1953	N	LEU	A	317	38.780	28.729	28.105	1.00 16.27	A
	ATOM	1954	CA	LEU	A	317	39.228	30.022	27.596	1.00 17.52	A
55	ATOM	1955	CB	LEU	A	317	38.083	30.752	26.887	1.00 16.37	A
	ATOM	1956	CG	LEU	A	317	37.448	29.973	25.727	1.00 18.81	A
	ATOM	1957	CD1	LEU	A	317	36.415	30.851	25.018	1.00 16.47	A
	ATOM	1958	CD2	LEU	A	317	38.528	29.526	24.741	1.00 17.87	A
	ATOM	1959	C	LEU	A	317	39.745	30.841	28.774	1.00 18.27	A

	ATOM	1960	O	LEU A 317	39.078	31.753	29.273	1.00	18.58	A
	ATOM	1961	N	VAL A 318	40.937	30.475	29.229	1.00	18.02	A
	ATOM	1962	CA	VAL A 318	41.593	31.141	30.342	1.00	18.85	A
	ATOM	1963	CB	VAL A 318	41.846	30.153	31.500	1.00	19.91	A
5	ATOM	1964	CG1	VAL A 318	42.590	30.848	32.634	1.00	20.01	A
	ATOM	1965	CG2	VAL A 318	40.520	29.584	31.990	1.00	19.44	A
	ATOM	1966	C	VAL A 318	42.923	31.657	29.811	1.00	19.67	A
	ATOM	1967	O	VAL A 318	43.690	30.902	29.208	1.00	18.26	A
	ATOM	1968	N	LEU A 319	43.197	32.939	30.028	1.00	20.07	A
10	ATOM	1969	CA	LEU A 319	44.436	33.533	29.538	1.00	20.98	A
	ATOM	1970	CB	LEU A 319	44.521	35.002	29.968	1.00	21.64	A
	ATOM	1971	CG	LEU A 319	43.418	35.908	29.408	1.00	24.38	A
	ATOM	1972	CD1	LEU A 319	43.606	37.332	29.935	1.00	23.28	A
	ATOM	1973	CD2	LEU A 319	43.453	35.887	27.875	1.00	24.33	A
15	ATOM	1974	C	LEU A 319	45.680	32.774	29.994	1.00	20.38	A
	ATOM	1975	O	LEU A 319	46.568	32.496	29.192	1.00	21.34	A
	ATOM	1976	N	ASP A 320	45.742	32.440	31.280	1.00	20.22	A
	ATOM	1977	CA	ASP A 320	46.879	31.707	31.833	1.00	20.90	A
	ATOM	1978	CB	ASP A 320	46.842	31.760	33.365	1.00	20.76	A
20	ATOM	1979	CG	ASP A 320	48.049	31.102	34.004	1.00	21.51	A
	ATOM	1980	OD1	ASP A 320	48.669	30.226	33.367	1.00	23.46	A
	ATOM	1981	OD2	ASP A 320	48.371	31.450	35.159	1.00	23.89	A
	ATOM	1982	C	ASP A 320	46.814	30.247	31.367	1.00	20.06	A
	ATOM	1983	O	ASP A 320	45.988	29.476	31.840	1.00	20.54	A
25	ATOM	1984	N	ALA A 321	47.700	29.876	30.451	1.00	20.68	A
	ATOM	1985	CA	ALA A 321	47.733	28.522	29.903	1.00	22.04	A
	ATOM	1986	CB	ALA A 321	48.860	28.411	28.881	1.00	20.75	A
	ATOM	1987	C	ALA A 321	47.858	27.400	30.940	1.00	21.62	A
	ATOM	1988	O	ALA A 321	47.482	26.259	30.665	1.00	21.99	A
30	ATOM	1989	N	THR A 322	48.372	27.715	32.127	1.00	20.89	A
	ATOM	1990	CA	THR A 322	48.531	26.698	33.167	1.00	20.82	A
	ATOM	1991	CB	THR A 322	49.670	27.051	34.146	1.00	19.47	A
	ATOM	1992	OG1	THR A 322	49.341	28.253	34.848	1.00	20.19	A
	ATOM	1993	CG2	THR A 322	50.981	27.249	33.394	1.00	21.59	A
35	ATOM	1994	C	THR A 322	47.264	26.498	33.983	1.00	19.55	A
	ATOM	1995	O	THR A 322	47.235	25.673	34.894	1.00	21.13	A
	ATOM	1996	N	LYS A 323	46.216	27.248	33.661	1.00	19.33	A
	ATOM	1997	CA	LYS A 323	44.962	27.122	34.392	1.00	21.20	A
	ATOM	1998	CB	LYS A 323	44.580	28.460	35.030	1.00	23.75	A
40	ATOM	1999	CG	LYS A 323	45.562	28.933	36.084	1.00	28.45	A
	ATOM	2000	CD	LYS A 323	45.055	30.177	36.799	1.00	33.76	A
	ATOM	2001	CE	LYS A 323	46.087	30.678	37.802	1.00	36.15	A
	ATOM	2002	NZ	LYS A 323	46.532	29.569	38.693	1.00	37.34	A
	ATOM	2003	C	LYS A 323	43.806	26.614	33.539	1.00	20.68	A
45	ATOM	2004	O	LYS A 323	42.649	26.757	33.915	1.00	20.42	A
	ATOM	2005	N	ARG A 324	44.114	26.019	32.392	1.00	19.97	A
	ATOM	2006	CA	ARG A 324	43.060	25.494	31.531	1.00	17.98	A
	ATOM	2007	CB	ARG A 324	43.461	25.609	30.061	1.00	15.95	A
	ATOM	2008	CG	ARG A 324	43.534	27.050	29.603	1.00	17.34	A
50	ATOM	2009	CD	ARG A 324	43.996	27.194	28.172	1.00	19.80	A
	ATOM	2010	NE	ARG A 324	44.438	28.565	27.944	1.00	16.93	A
	ATOM	2011	CZ	ARG A 324	45.410	28.908	27.108	1.00	19.88	A
	ATOM	2012	NH1	ARG A 324	46.045	27.978	26.398	1.00	14.58	A
	ATOM	2013	NH2	ARG A 324	45.774	30.181	27.015	1.00	16.51	A
55	ATOM	2014	C	ARG A 324	42.762	24.046	31.883	1.00	18.32	A
	ATOM	2015	O	ARG A 324	43.673	23.222	32.006	1.00	18.20	A
	ATOM	2016	N	LEU A 325	41.479	23.748	32.055	1.00	18.32	A
	ATOM	2017	CA	LEU A 325	41.050	22.403	32.395	1.00	17.79	A
	ATOM	2018	CB	LEU A 325	39.523	22.335	32.425	1.00	17.03	A

	ATOM	2019	CG	LEU	A	325	38.896	21.125	33.116	1.00 15.91	A
	ATOM	2020	CD1	LEU	A	325	39.392	21.048	34.557	1.00 15.93	A
	ATOM	2021	CD2	LEU	A	325	37.375	21.255	33.084	1.00 16.56	A
	ATOM	2022	C	LEU	A	325	41.599	21.433	31.356	1.00 18.68	A
5	ATOM	2023	O	LEU	A	325	41.347	21.586	30.157	1.00 18.28	A
	ATOM	2024	N	GLY	A	326	42.354	20.439	31.821	1.00 18.18	A
	ATOM	2025	CA	GLY	A	326	42.931	19.462	30.915	1.00 16.36	A
	ATOM	2026	C	GLY	A	326	44.443	19.558	30.807	1.00 19.15	A
	ATOM	2027	O	GLY	A	326	45.093	18.592	30.404	1.00 19.52	A
10	ATOM	2028	N	CYS	A	327	45.016	20.708	31.161	1.00 18.16	A
	ATOM	2029	CA	CYS	A	327	46.463	20.867	31.075	1.00 19.30	A
	ATOM	2030	CB	CYS	A	327	46.856	22.350	31.058	1.00 20.22	A
	ATOM	2031	SG	CYS	A	327	46.782	23.200	32.649	1.00 21.97	A
	ATOM	2032	C	CYS	A	327	47.169	20.157	32.228	1.00 20.22	A
15	ATOM	2033	O	CYS	A	327	46.561	19.828	33.246	1.00 17.92	A
	ATOM	2034	N	GLU	A	328	48.463	19.933	32.053	1.00 20.51	A
	ATOM	2035	CA	GLU	A	328	49.274	19.244	33.042	1.00 23.34	A
	ATOM	2036	CB	GLU	A	328	50.710	19.139	32.507	1.00 28.68	A
	ATOM	2037	CG	GLU	A	328	50.754	18.367	31.175	1.00 38.24	A
20	ATOM	2038	CD	GLU	A	328	52.067	18.500	30.414	1.00 43.23	A
	ATOM	2039	OE1	GLU	A	328	52.535	19.643	30.218	1.00 46.22	A
	ATOM	2040	OE2	GLU	A	328	52.618	17.459	29.991	1.00 44.90	A
	ATOM	2041	C	GLU	A	328	49.234	19.876	34.435	1.00 22.11	A
	ATOM	2042	O	GLU	A	328	49.147	19.161	35.437	1.00 20.27	A
25	ATOM	2043	N	GLU	A	329	49.276	21.204	34.506	1.00 18.40	A
	ATOM	2044	CA	GLU	A	329	49.248	21.875	35.801	1.00 20.13	A
	ATOM	2045	CB	GLU	A	329	49.587	23.363	35.657	1.00 20.36	A
	ATOM	2046	CG	GLU	A	329	51.014	23.651	35.190	1.00 24.05	A
	ATOM	2047	CD	GLU	A	329	51.191	23.518	33.688	1.00 25.93	A
30	ATOM	2048	OE1	GLU	A	329	50.213	23.154	32.995	1.00 26.61	A
	ATOM	2049	OE2	GLU	A	329	52.311	23.781	33.198	1.00 27.19	A
	ATOM	2050	C	GLU	A	329	47.890	21.718	36.480	1.00 19.36	A
	ATOM	2051	O	GLU	A	329	47.775	21.879	37.694	1.00 18.74	A
	ATOM	2052	N	MET	A	330	46.863	21.415	35.691	1.00 17.28	A
35	ATOM	2053	CA	MET	A	330	45.520	21.220	36.229	1.00 16.38	A
	ATOM	2054	CB	MET	A	330	44.474	21.833	35.294	1.00 17.65	A
	ATOM	2055	CG	MET	A	330	44.460	23.365	35.311	1.00 22.95	A
	ATOM	2056	SD	MET	A	330	44.186	24.026	36.979	1.00 26.78	A
	ATOM	2057	CE	MET	A	330	42.435	23.712	37.186	1.00 24.69	A
40	ATOM	2058	C	MET	A	330	45.257	19.730	36.422	1.00 14.30	A
	ATOM	2059	O	MET	A	330	44.127	19.304	36.629	1.00 15.39	A
	ATOM	2060	N	GLU	A	331	46.327	18.949	36.346	1.00 15.60	A
	ATOM	2061	CA	GLU	A	331	46.289	17.501	36.531	1.00 17.08	A
	ATOM	2062	CB	GLU	A	331	45.607	17.155	37.862	1.00 17.00	A
45	ATOM	2063	CG	GLU	A	331	46.070	18.027	39.038	1.00 17.46	A
	ATOM	2064	CD	GLU	A	331	47.591	18.179	39.145	1.00 20.16	A
	ATOM	2065	OE1	GLU	A	331	48.034	19.073	39.896	1.00 21.39	A
	ATOM	2066	OE2	GLU	A	331	48.345	17.420	38.500	1.00 18.87	A
	ATOM	2067	C	GLU	A	331	45.697	16.658	35.398	1.00 17.80	A
50	ATOM	2068	O	GLU	A	331	45.107	15.602	35.636	1.00 20.40	A
	ATOM	2069	N	GLY	A	332	45.844	17.133	34.167	1.00 16.23	A
	ATOM	2070	CA	GLY	A	332	45.420	16.353	33.015	1.00 14.10	A
	ATOM	2071	C	GLY	A	332	43.982	16.154	32.596	1.00 13.54	A
	ATOM	2072	O	GLY	A	332	43.063	16.864	33.017	1.00 11.96	A
55	ATOM	2073	N	TYR	A	333	43.804	15.141	31.750	1.00 14.37	A
	ATOM	2074	CA	TYR	A	333	42.510	14.806	31.182	1.00 13.56	A
	ATOM	2075	CB	TYR	A	333	42.722	13.892	29.968	1.00 15.00	A
	ATOM	2076	CG	TYR	A	333	43.153	14.683	28.752	1.00 16.46	A
	ATOM	2077	CD1	TYR	A	333	42.206	15.172	27.849	1.00 15.29	A

	ATOM	2078	CE1	TYR	A	333	42.573	16.002	26.794	1.00	13.42	A
	ATOM	2079	CD2	TYR	A	333	44.490	15.039	28.561	1.00	14.91	A
	ATOM	2080	CE2	TYR	A	333	44.872	15.877	27.499	1.00	14.87	A
	ATOM	2081	CZ	TYR	A	333	43.902	16.353	26.626	1.00	15.61	A
5	ATOM	2082	OH	TYR	A	333	44.244	17.197	25.599	1.00	17.29	A
	ATOM	2083	C	TYR	A	333	41.470	14.230	32.127	1.00	15.23	A
	ATOM	2084	O	TYR	A	333	40.278	14.323	31.846	1.00	16.63	A
	ATOM	2085	N	GLY	A	334	41.907	13.650	33.244	1.00	15.50	A
	ATOM	2086	CA	GLY	A	334	40.957	13.100	34.202	1.00	15.07	A
10	ATOM	2087	C	GLY	A	334	39.925	14.146	34.616	1.00	16.40	A
	ATOM	2088	O	GLY	A	334	38.724	13.946	34.433	1.00	15.05	A
	ATOM	2089	N	PRO	A	335	40.366	15.278	35.184	1.00	14.96	A
	ATOM	2090	CD	PRO	A	335	41.727	15.531	35.689	1.00	15.88	A
	ATOM	2091	CA	PRO	A	335	39.444	16.339	35.606	1.00	15.29	A
15	ATOM	2092	CB	PRO	A	335	40.383	17.397	36.178	1.00	13.19	A
	ATOM	2093	CG	PRO	A	335	41.485	16.569	36.758	1.00	13.81	A
	ATOM	2094	C	PRO	A	335	38.594	16.877	34.448	1.00	15.84	A
	ATOM	2095	O	PRO	A	335	37.423	17.204	34.631	1.00	14.84	A
	ATOM	2096	N	LEU	A	336	39.184	16.971	33.257	1.00	16.12	A
20	ATOM	2097	CA	LEU	A	336	38.450	17.465	32.094	1.00	15.52	A
	ATOM	2098	CB	LEU	A	336	39.396	17.653	30.898	1.00	14.39	A
	ATOM	2099	CG	LEU	A	336	38.770	17.991	29.538	1.00	15.46	A
	ATOM	2100	CD1	LEU	A	336	37.836	19.182	29.662	1.00	11.25	A
	ATOM	2101	CD2	LEU	A	336	39.884	18.285	28.528	1.00	14.11	A
25	ATOM	2102	C	LEU	A	336	37.321	16.508	31.714	1.00	16.28	A
	ATOM	2103	O	LEU	A	336	36.176	16.921	31.540	1.00	15.51	A
	ATOM	2104	N	LYS	A	337	37.640	15.225	31.592	1.00	17.22	A
	ATOM	2105	CA	LYS	A	337	36.624	14.243	31.235	1.00	17.39	A
	ATOM	2106	CB	LYS	A	337	37.293	12.900	30.921	1.00	17.68	A
30	ATOM	2107	CG	LYS	A	337	38.170	12.994	29.676	1.00	22.31	A
	ATOM	2108	CD	LYS	A	337	39.213	11.892	29.592	1.00	24.60	A
	ATOM	2109	CE	LYS	A	337	38.620	10.560	29.189	1.00	24.76	A
	ATOM	2110	NZ	LYS	A	337	39.710	9.560	28.997	1.00	25.05	A
	ATOM	2111	C	LYS	A	337	35.577	14.096	32.342	1.00	17.33	A
35	ATOM	2112	O	LYS	A	337	34.456	13.652	32.090	1.00	14.42	A
	ATOM	2113	N	ALA	A	338	35.928	14.500	33.559	1.00	15.83	A
	ATOM	2114	CA	ALA	A	338	34.989	14.395	34.674	1.00	17.52	A
	ATOM	2115	CB	ALA	A	338	35.749	14.167	35.980	1.00	19.68	A
	ATOM	2116	C	ALA	A	338	34.095	15.621	34.804	1.00	18.83	A
40	ATOM	2117	O	ALA	A	338	33.252	15.687	35.695	1.00	18.94	A
	ATOM	2118	N	HIS	A	339	34.262	16.596	33.918	1.00	19.42	A
	ATOM	2119	CA	HIS	A	339	33.438	17.796	34.004	1.00	19.28	A
	ATOM	2120	CB	HIS	A	339	33.865	18.819	32.949	1.00	19.20	A
	ATOM	2121	CG	HIS	A	339	33.163	20.134	33.074	1.00	20.26	A
45	ATOM	2122	CD2	HIS	A	339	33.549	21.299	33.649	1.00	18.95	A
	ATOM	2123	ND1	HIS	A	339	31.880	20.340	32.612	1.00	19.10	A
	ATOM	2124	CE1	HIS	A	339	31.506	21.576	32.896	1.00	22.19	A
	ATOM	2125	NE2	HIS	A	339	32.500	22.179	33.525	1.00	21.98	A
	ATOM	2126	C	HIS	A	339	31.957	17.448	33.845	1.00	19.13	A
50	ATOM	2127	O	HIS	A	339	31.597	16.576	33.061	1.00	19.52	A
	ATOM	2128	N	PRO	A	340	31.079	18.125	34.606	1.00	19.80	A
	ATOM	2129	CD	PRO	A	340	31.424	19.119	35.640	1.00	19.08	A
	ATOM	2130	CA	PRO	A	340	29.630	17.900	34.569	1.00	20.52	A
	ATOM	2131	CB	PRO	A	340	29.091	19.058	35.396	1.00	20.74	A
55	ATOM	2132	CG	PRO	A	340	30.146	19.207	36.454	1.00	19.20	A
	ATOM	2133	C	PRO	A	340	29.000	17.834	33.176	1.00	21.42	A
	ATOM	2134	O	PRO	A	340	28.049	17.088	32.955	1.00	22.48	A
	ATOM	2135	N	PHE	A	341	29.528	18.606	32.237	1.00	21.33	A
	ATOM	2136	CA	PHE	A	341	28.985	18.610	30.886	1.00	21.57	A

	ATOM	2137	CB	PHE A 341	29.739	19.624	30.017	1.00	21.64	A
	ATOM	2138	CG	PHE A 341	29.207	19.740	28.613	1.00	23.18	A
	ATOM	2139	CD1	PHE A 341	27.903	20.171	28.382	1.00	22.58	A
	ATOM	2140	CD2	PHE A 341	30.013	19.431	27.522	1.00	21.95	A
5	ATOM	2141	CE1	PHE A 341	27.410	20.292	27.082	1.00	23.54	A
	ATOM	2142	CE2	PHE A 341	29.533	19.548	26.220	1.00	21.83	A
	ATOM	2143	CZ	PHE A 341	28.228	19.980	25.998	1.00	23.23	A
	ATOM	2144	C	PHE A 341	29.055	17.226	30.237	1.00	21.84	A
	ATOM	2145	O	PHE A 341	28.232	16.896	29.389	1.00	20.37	A
10	ATOM	2146	N	PHE A 342	30.034	16.422	30.640	1.00	20.51	A
	ATOM	2147	CA	PHE A 342	30.221	15.085	30.077	1.00	23.01	A
	ATOM	2148	CB	PHE A 342	31.710	14.809	29.850	1.00	18.00	A
	ATOM	2149	CG	PHE A 342	32.398	15.812	28.971	1.00	17.05	A
	ATOM	2150	CD1	PHE A 342	32.010	15.987	27.652	1.00	17.78	A
15	ATOM	2151	CD2	PHE A 342	33.487	16.534	29.450	1.00	15.72	A
	ATOM	2152	CE1	PHE A 342	32.702	16.867	26.811	1.00	18.08	A
	ATOM	2153	CE2	PHE A 342	34.184	17.414	28.617	1.00	17.45	A
	ATOM	2154	CZ	PHE A 342	33.790	17.578	27.298	1.00	16.56	A
	ATOM	2155	C	PHE A 342	29.679	13.972	30.976	1.00	24.95	A
20	ATOM	2156	O	PHE A 342	30.002	12.798	30.777	1.00	23.95	A
	ATOM	2157	N	GLU A 343	28.861	14.333	31.958	1.00	27.35	A
	ATOM	2158	CA	GLU A 343	28.325	13.349	32.897	1.00	30.28	A
	ATOM	2159	CB	GLU A 343	27.187	13.964	33.716	1.00	32.20	A
	ATOM	2160	CG	GLU A 343	26.581	12.991	34.714	1.00	39.71	A
25	ATOM	2161	CD	GLU A 343	25.628	13.661	35.688	1.00	44.72	A
	ATOM	2162	OE1	GLU A 343	24.661	14.314	35.234	1.00	47.55	A
	ATOM	2163	OE2	GLU A 343	25.847	13.526	36.911	1.00	46.89	A
	ATOM	2164	C	GLU A 343	27.852	12.017	32.305	1.00	28.98	A
	ATOM	2165	O	GLU A 343	28.225	10.952	32.800	1.00	31.73	A
30	ATOM	2166	N	SER A 344	27.037	12.067	31.258	1.00	26.09	A
	ATOM	2167	CA	SER A 344	26.520	10.838	30.656	1.00	28.36	A
	ATOM	2168	CB	SER A 344	25.129	11.089	30.067	1.00	28.73	A
	ATOM	2169	OG	SER A 344	25.203	11.942	28.940	1.00	30.91	A
	ATOM	2170	C	SER A 344	27.407	10.214	29.577	1.00	27.66	A
35	ATOM	2171	O	SER A 344	26.987	9.281	28.900	1.00	28.66	A
	ATOM	2172	N	VAL A 345	28.627	10.715	29.419	1.00	26.75	A
	ATOM	2173	CA	VAL A 345	29.534	10.183	28.402	1.00	23.44	A
	ATOM	2174	CB	VAL A 345	30.565	11.256	27.950	1.00	23.10	A
	ATOM	2175	CG1	VAL A 345	31.589	10.631	26.995	1.00	22.24	A
40	ATOM	2176	CG2	VAL A 345	29.854	12.418	27.275	1.00	20.05	A
	ATOM	2177	C	VAL A 345	30.326	8.957	28.855	1.00	24.26	A
	ATOM	2178	O	VAL A 345	30.876	8.930	29.960	1.00	22.83	A
	ATOM	2179	N	THR A 346	30.374	7.942	27.997	1.00	21.77	A
	ATOM	2180	CA	THR A 346	31.153	6.740	28.272	1.00	23.70	A
45	ATOM	2181	CB	THR A 346	30.391	5.455	27.857	1.00	26.53	A
	ATOM	2182	OG1	THR A 346	29.248	5.284	28.706	1.00	29.98	A
	ATOM	2183	CG2	THR A 346	31.289	4.231	27.990	1.00	24.28	A
	ATOM	2184	C	THR A 346	32.383	6.945	27.385	1.00	23.43	A
	ATOM	2185	O	THR A 346	32.306	6.827	26.160	1.00	24.50	A
50	ATOM	2186	N	TRP A 347	33.508	7.270	28.013	1.00	22.98	A
	ATOM	2187	CA	TRP A 347	34.744	7.569	27.300	1.00	23.81	A
	ATOM	2188	CB	TRP A 347	35.683	8.352	28.219	1.00	22.54	A
	ATOM	2189	CG	TRP A 347	35.128	9.658	28.693	1.00	20.61	A
	ATOM	2190	CD2	TRP A 347	35.257	10.927	28.040	1.00	19.11	A
55	ATOM	2191	CE2	TRP A 347	34.581	11.881	28.838	1.00	18.39	A
	ATOM	2192	CE3	TRP A 347	35.878	11.351	26.858	1.00	18.16	A
	ATOM	2193	CD1	TRP A 347	34.397	9.883	29.828	1.00	18.35	A
	ATOM	2194	NE1	TRP A 347	34.065	11.218	29.923	1.00	19.51	A
	ATOM	2195	CZ2	TRP A 347	34.510	13.234	28.491	1.00	16.88	A

	ATOM	2196	CZ3	TRP	A	347	35.808	12.701	26.511	1.00 17.23	A
	ATOM	2197	CH2	TRP	A	347	35.127	13.624	27.327	1.00 18.16	A
	ATOM	2198	C	TRP	A	347	35.538	6.429	26.675	1.00 25.79	A
	ATOM	2199	O	TRP	A	347	36.304	6.654	25.742	1.00 24.67	A
5	ATOM	2200	N	ALA	A	348	35.360	5.215	27.183	1.00 27.10	A
	ATOM	2201	CA	ALA	A	348	36.116	4.063	26.697	1.00 27.46	A
	ATOM	2202	CB	ALA	A	348	35.899	2.869	27.636	1.00 27.09	A
	ATOM	2203	C	ALA	A	348	35.895	3.620	25.256	1.00 27.18	A
	ATOM	2204	O	ALA	A	348	36.830	3.148	24.613	1.00 29.41	A
10	ATOM	2205	N	ASN	A	349	34.682	3.769	24.735	1.00 26.55	A
	ATOM	2206	CA	ASN	A	349	34.418	3.310	23.375	1.00 27.28	A
	ATOM	2207	CB	ASN	A	349	33.700	1.962	23.444	1.00 29.37	A
	ATOM	2208	CG	ASN	A	349	32.299	2.088	24.013	1.00 30.92	A
	ATOM	2209	OD1	ASN	A	349	32.045	2.942	24.859	1.00 30.17	A
15	ATOM	2210	ND2	ASN	A	349	31.386	1.237	23.553	1.00 33.52	A
	ATOM	2211	C	ASN	A	349	33.599	4.265	22.509	1.00 26.47	A
	ATOM	2212	O	ASN	A	349	32.669	3.843	21.819	1.00 25.87	A
	ATOM	2213	N	LEU	A	350	33.947	5.543	22.518	1.00 24.45	A
	ATOM	2214	CA	LEU	A	350	33.203	6.510	21.721	1.00 23.14	A
20	ATOM	2215	CB	LEU	A	350	33.837	7.898	21.848	1.00 23.22	A
	ATOM	2216	CG	LEU	A	350	33.659	8.605	23.191	1.00 21.05	A
	ATOM	2217	CD1	LEU	A	350	34.646	9.756	23.293	1.00 19.36	A
	ATOM	2218	CD2	LEU	A	350	32.220	9.094	23.319	1.00 18.78	A
	ATOM	2219	C	LEU	A	350	33.082	6.152	20.240	1.00 22.60	A
25	ATOM	2220	O	LEU	A	350	32.011	6.296	19.650	1.00 21.15	A
	ATOM	2221	N	HIS	A	351	34.165	5.689	19.627	1.00 23.13	A
	ATOM	2222	CA	HIS	A	351	34.089	5.387	18.204	1.00 27.83	A
	ATOM	2223	CB	HIS	A	351	35.506	5.325	17.596	1.00 29.36	A
	ATOM	2224	CG	HIS	A	351	36.082	3.950	17.493	1.00 32.07	A
30	ATOM	2225	CD2	HIS	A	351	36.611	3.128	18.431	1.00 32.39	A
	ATOM	2226	ND1	HIS	A	351	36.197	3.285	16.291	1.00 33.02	A
	ATOM	2227	CE1	HIS	A	351	36.775	2.113	16.493	1.00 33.58	A
	ATOM	2228	NE2	HIS	A	351	37.036	1.992	17.782	1.00 31.76	A
	ATOM	2229	C	HIS	A	351	33.258	4.144	17.874	1.00 28.12	A
35	ATOM	2230	O	HIS	A	351	33.015	3.847	16.707	1.00 29.49	A
	ATOM	2231	N	GLN	A	352	32.800	3.442	18.908	1.00 29.28	A
	ATOM	2232	CA	GLN	A	352	31.963	2.255	18.726	1.00 29.67	A
	ATOM	2233	CB	GLN		352	32.366	1.145	19.694	0.50 30.56	AC1
	ATOM	2234	CG	GLN		352	33.169	0.041	19.041	0.50 30.88	AC1
40	ATOM	2235	CD	GLN		352	34.493	-0.186	19.729	0.50 31.21	AC1
	ATOM	2236	OE1	GLN		352	34.541	-0.450	20.928	0.50 30.76	AC1
	ATOM	2237	NE2	GLN		352	35.578	-0.084	18.971	0.50 32.30	AC1
	ATOM	2238	C	GLN	A	352	30.504	2.638	18.963	1.00 30.42	A
	ATOM	2239	O	GLN	A	352	29.595	1.831	18.770	1.00 29.01	A
45	ATOM	2240	N	GLN	A	353	30.290	3.875	19.397	1.00 27.64	A
	ATOM	2241	CA	GLN	A	353	28.948	4.365	19.652	1.00 27.42	A
	ATOM	2242	CB	GLN	A	353	28.977	5.401	20.775	1.00 25.77	A
	ATOM	2243	CG	GLN	A	353	29.408	4.837	22.115	1.00 27.34	A
	ATOM	2244	CD	GLN	A	353	29.638	5.914	23.156	1.00 27.19	A
50	ATOM	2245	OE1	GLN	A	353	28.875	6.872	23.252	1.00 28.29	A
	ATOM	2246	NE2	GLN	A	353	30.687	5.753	23.951	1.00 28.79	A
	ATOM	2247	C	GLN	A	353	28.375	4.989	18.385	1.00 29.00	A
	ATOM	2248	O	GLN	A	353	29.118	5.455	17.516	1.00 29.14	A
	ATOM	2249	N	THR	A	354	27.053	4.984	18.276	1.00 27.31	A
55	ATOM	2250	CA	THR	A	354	26.390	5.568	17.119	1.00 27.85	A
	ATOM	2251	CB	THR	A	354	24.991	4.941	16.904	1.00 30.69	A
	ATOM	2252	OG1	THR	A	354	25.132	3.532	16.665	1.00 30.07	A
	ATOM	2253	CG2	THR	A	354	24.289	5.585	15.709	1.00 29.58	A
	ATOM	2254	C	THR	A	354	26.244	7.062	17.376	1.00 26.85	A

	ATOM	2255	O	THR A 354	25.592	7.475	18.329	1.00	25.77	A
	ATOM	2256	N	PRO A 355	26.867	7.898	16.533	1.00	27.22	A
	ATOM	2257	CD	PRO A 355	27.792	7.588	15.431	1.00	25.89	A
	ATOM	2258	CA	PRO A 355	26.763	9.346	16.734	1.00	27.23	A
5	ATOM	2259	CB	PRO A 355	27.625	9.915	15.609	1.00	24.91	A
	ATOM	2260	CG	PRO A 355	28.643	8.838	15.385	1.00	25.54	A
	ATOM	2261	C	PRO A 355	25.322	9.837	16.641	1.00	28.07	A
	ATOM	2262	O	PRO A 355	24.548	9.364	15.810	1.00	27.24	A
	ATOM	2263	N	PRO A 356	24.941	10.792	17.500	1.00	28.28	A
10	ATOM	2264	CD	PRO A 356	25.752	11.560	18.462	1.00	28.31	A
	ATOM	2265	CA	PRO A 356	23.572	11.306	17.448	1.00	28.44	A
	ATOM	2266	CB	PRO A 356	23.539	12.301	18.604	1.00	28.11	A
	ATOM	2267	CG	PRO A 356	24.946	12.832	18.612	1.00	26.86	A
	ATOM	2268	C	PRO A 356	23.363	11.978	16.097	1.00	29.25	A
15	ATOM	2269	O	PRO A 356	24.304	12.537	15.529	1.00	27.27	A
	ATOM	2270	N	ALA A 357	22.143	11.910	15.575	1.00	30.45	A
	ATOM	2271	CA	ALA A 357	21.848	12.521	14.287	1.00	32.81	A
	ATOM	2272	CB	ALA A 357	20.507	12.019	13.757	1.00	31.99	A
	ATOM	2273	C	ALA A 357	21.824	14.035	14.448	1.00	35.05	A
20	ATOM	2274	O	ALA A 357	21.194	14.561	15.369	1.00	35.04	A
	ATOM	2275	N	LEU A 358	22.516	14.730	13.552	1.00	37.81	A
	ATOM	2276	CA	LEU A 358	22.578	16.185	13.597	1.00	42.15	A
	ATOM	2277	CB	LEU A 358	23.679	16.681	12.658	1.00	39.54	A
	ATOM	2278	CG	LEU A 358	25.086	16.285	13.109	1.00	39.51	A
25	ATOM	2279	CD1	LEU A 358	26.102	16.686	12.062	1.00	39.29	A
	ATOM	2280	CD2	LEU A 358	25.395	16.953	14.445	1.00	40.01	A
	ATOM	2281	C	LEU A 358	21.241	16.837	13.242	1.00	45.91	A
	ATOM	2282	O	LEU A 358	20.874	16.927	12.069	1.00	45.71	A
	ATOM	2283	N	THR A 359	20.530	17.290	14.275	1.00	50.06	A
30	ATOM	2284	CA	THR A 359	19.223	17.939	14.140	1.00	53.73	A
	ATOM	2285	CB	THR A 359	19.353	19.428	13.726	1.00	54.04	A
	ATOM	2286	OG1	THR A 359	19.995	19.521	12.448	1.00	56.35	A
	ATOM	2287	CG2	THR A 359	20.158	20.204	14.763	1.00	54.32	A
	ATOM	2288	C	THR A 359	18.309	17.236	13.139	1.00	54.47	A
35	ATOM	2289	O	THR A 359	18.483	16.016	12.930	1.00	55.90	A
	ATOM	2290	OXT	THR A 359	17.407	17.908	12.595	1.00	56.97	A
	ATOM	2291	OH2	TIP S 1	42.566	19.118	34.302	1.00	15.09	S
	ATOM	2292	OH2	TIP S 2	41.052	32.378	19.857	1.00	15.82	S
	ATOM	2293	OH2	TIP S 3	37.014	33.030	17.747	1.00	16.95	S
40	ATOM	2294	OH2	TIP S 5	45.353	24.370	18.152	1.00	16.85	S
	ATOM	2295	OH2	TIP S 6	31.896	13.930	33.235	1.00	20.42	S
	ATOM	2296	OH2	TIP S 7	50.351	22.781	28.249	1.00	21.14	S
	ATOM	2297	OH2	TIP S 8	45.246	-0.589	-0.734	1.00	17.74	S
	ATOM	2298	OH2	TIP S 11	46.249	-0.348	-8.523	1.00	21.32	S
45	ATOM	2299	OH2	TIP S 14	45.756	11.148	29.680	1.00	21.94	S
	ATOM	2300	OH2	TIP S 15	44.273	13.157	34.592	1.00	15.61	S
	ATOM	2301	OH2	TIP S 17	53.598	3.722	-1.720	1.00	21.45	S
	ATOM	2302	OH2	TIP S 18	46.049	13.087	31.565	1.00	20.35	S
	ATOM	2303	OH2	TIP S 19	53.422	22.401	-3.280	1.00	23.26	S
50	ATOM	2304	OH2	TIP S 20	34.587	7.922	5.383	1.00	22.58	S
	ATOM	2305	OH2	TIP S 21	45.053	27.379	19.376	1.00	29.60	S
	ATOM	2306	OH2	TIP S 23	28.899	36.416	28.633	1.00	31.68	S
	ATOM	2307	OH2	TIP S 24	35.531	11.645	-8.219	1.00	23.45	S
	ATOM	2308	OH2	TIP S 25	47.364	28.787	19.612	1.00	23.03	S
55	ATOM	2309	OH2	TIP S 27	48.859	21.588	12.634	1.00	23.76	S
	ATOM	2310	OH2	TIP S 29	48.805	8.920	23.626	1.00	22.23	S
	ATOM	2311	OH2	TIP S 31	48.619	7.247	10.112	1.00	21.32	S
	ATOM	2312	OH2	TIP S 34	44.824	28.720	15.621	1.00	25.27	S
	ATOM	2313	OH2	TIP S 35	26.030	12.634	13.407	1.00	21.61	S

	ATOM	2314	OH2 TIP S	36	50.462	19.810	40.066	1.00	25.45		S
	ATOM	2315	OH2 TIP S	37	39.631	23.510	-0.239	1.00	30.88		S
	ATOM	2316	OH2 TIP S	40	44.734	42.655	10.346	1.00	30.84		S
	ATOM	2317	OH2 TIP S	41	54.653	3.902	1.503	1.00	27.14		S
5	ATOM	2318	OH2 TIP S	45	45.693	21.923	39.754	1.00	28.30		S
	ATOM	2319	OH2 TIP S	47	47.820	16.413	7.805	1.00	25.73		S
	ATOM	2320	OH2 TIP S	48	50.292	31.412	29.642	1.00	32.79		S
	ATOM	2321	OH2 TIP S	49	26.056	16.646	34.827	1.00	29.80		S
	ATOM	2322	OH2 TIP S	52	31.714	10.996	31.855	1.00	29.15		S
10	ATOM	2323	OH2 TIP S	53	46.108	23.843	-4.299	1.00	24.21		S
	ATOM	2324	OH2 TIP S	54	37.645	11.206	34.448	1.00	28.56		S
	ATOM	2325	OH2 TIP S	55	26.371	28.513	12.142	1.00	32.08		S
	ATOM	2326	OH2 TIP S	58	33.564	19.700	3.483	1.00	28.28		S
	ATOM	2327	OH2 TIP S	64	48.295	-0.632	14.280	1.00	32.13		S
15	ATOM	2328	OH2 TIP S	65	40.064	26.036	34.324	1.00	24.17		S
	ATOM	2329	OH2 TIP S	66	29.570	3.958	14.729	1.00	28.94		S
	ATOM	2330	OH2 TIP S	72	60.085	11.604	6.814	1.00	38.35		S
	ATOM	2331	OH2 TIP S	73	39.203	44.403	18.686	1.00	26.61		S
	ATOM	2332	OH2 TIP S	76	47.312	12.366	27.366	1.00	28.51		S
20	ATOM	2333	OH2 TIP S	80	43.862	33.771	33.329	1.00	28.82		S
	ATOM	2334	OH2 TIP S	81	57.890	13.106	2.128	1.00	40.62		S
	ATOM	2335	OH2 TIP S	82	41.663	34.381	32.043	1.00	19.35		S
	ATOM	2336	OH2 TIP S	85	50.974	40.331	19.200	1.00	21.14		S
	ATOM	2337	OH2 TIP S	88	47.925	-0.832	-6.556	1.00	24.11		S
25	ATOM	2338	OH2 TIP S	90	27.231	28.336	33.481	1.00	27.64		S
	ATOM	2339	OH2 TIP S	91	43.651	-7.101	-7.995	1.00	24.33		S
	ATOM	2340	OH2 TIP S	92	49.325	4.387	19.370	1.00	28.02		S
	ATOM	2341	OH2 TIP S	93	46.231	11.549	33.898	1.00	29.40		S
	ATOM	2342	OH2 TIP S	94	63.889	24.831	1.168	1.00	26.53		S
30	ATOM	2343	OH2 TIP S	96	56.396	4.952	-6.749	1.00	28.00		S
	ATOM	2344	OH2 TIP S	98	35.510	27.986	11.558	1.00	29.24		S
	ATOM	2345	OH2 TIP S	100	49.942	24.366	30.265	1.00	31.61		S
	ATOM	2346	OH2 TIP S	101	56.121	7.113	-8.298	1.00	31.57		S
	ATOM	2347	OH2 TIP S	102	58.318	19.957	-8.378	1.00	26.95		S
35	ATOM	2348	OH2 TIP S	103	49.647	22.446	39.624	1.00	40.57		S
	ATOM	2349	OH2 TIP S	104	45.359	7.052	13.052	1.00	26.27		S
	ATOM	2350	OH2 TIP S	105	37.150	32.340	32.346	1.00	34.45		S
	ATOM	2351	OH2 TIP S	107	43.465	40.457	8.240	1.00	40.48		S
	ATOM	2352	OH2 TIP S	119	36.644	8.257	13.418	1.00	30.70		S
40	ATOM	2353	OH2 TIP S	123	41.912	-8.974	-8.264	1.00	26.08		S
	ATOM	2354	OH2 TIP S	124	62.424	15.800	-7.411	1.00	24.08		S
	ATOM	2355	OH2 TIP S	126	37.266	18.656	-9.097	1.00	28.99		S
	ATOM	2356	OH2 TIP S	127	43.129	26.845	14.606	1.00	25.19		S
	ATOM	2357	OH2 TIP S	128	36.339	32.639	29.802	1.00	29.25		S
45	ATOM	2358	OH2 TIP S	130	54.051	14.561	26.498	1.00	33.93		S
	ATOM	2359	OH2 TIP S	131	41.805	-4.242	5.492	1.00	33.72		S
	ATOM	2360	OH2 TIP S	133	38.873	25.163	36.697	1.00	30.69		S
	ATOM	2361	OH2 TIP S	134	28.777	8.553	25.307	1.00	31.43		S
	ATOM	2362	OH2 TIP S	135	53.672	10.546	-12.803	1.00	33.45		S
50	ATOM	2363	OH2 TIP S	136	59.892	15.434	11.467	1.00	31.39		S
	ATOM	2364	OH2 TIP S	137	31.040	12.361	35.470	1.00	34.07		S
	ATOM	2365	OH2 TIP S	139	33.489	14.292	-0.598	1.00	40.68		S
	ATOM	2366	OH2 TIP S	140	46.918	8.748	11.662	1.00	29.23		S
	ATOM	2367	OH2 TIP S	141	46.297	-7.287	-9.196	1.00	42.20		S
55	ATOM	2368	OH2 TIP S	142	58.193	6.715	-4.685	1.00	35.48		S
	ATOM	2369	OH2 TIP S	143	44.598	4.435	12.503	1.00	27.68		S
	ATOM	2370	OH2 TIP S	144	27.003	5.999	12.450	1.00	36.30		S
	ATOM	2371	OH2 TIP S	145	43.676	32.852	35.735	1.00	35.70		S
	ATOM	2372	OH2 TIP S	146	35.783	18.628	36.452	1.00	34.62		S

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      ATOM   2373   OH2 TIP S 147     25.402    4.058   20.638   1.00 45.03        S
      ATOM   2374   OH2 TIP S 148     45.839   35.853   33.724   1.00 35.47        S
      ATOM   2375   OH2 TIP S 149     22.176   18.976   16.752   1.00 31.87        S
      ATOM   2376   OH2 TIP S 150     43.986   33.179   10.162   1.00 37.70        S
  5   ATOM   2377   OH2 TIP S 151     50.653   20.347   42.428   1.00 35.80        S
      ATOM   2378   OH2 TIP S 152     47.843   24.314    9.506   1.00 31.05        S
      ATOM   2379   OH2 TIP S 153     44.693    5.273  -14.175   1.00 29.90        S
      ATOM   2380   OH2 TIP S 155     26.560   36.851   31.684   1.00 49.29        S
      ATOM   2381   OH2 TIP S 156     46.867    8.019  -12.951   1.00 29.21        S
 10   ATOM   2382   OH2 TIP S 157     30.432   28.741   12.438   1.00 37.76        S
      ATOM   2383   OH2 TIP S 158     41.004   20.553    6.423   1.00 39.53        S
      ATOM   2384   OH2 TIP S 159     49.258   20.069   29.294   1.00 33.97        S
      ATOM   2385   OH2 TIP S 160     48.082   28.459   16.489   1.00 33.10        S
      ATOM   2386   OH2 TIP S 161     47.448   18.625   27.683   1.00 34.87        S
 15   ATOM   2387   OH2 TIP S 162     19.687   20.632   23.411   1.00 35.01        S
      ATOM   2388   OH2 TIP S 163     32.402   -1.266   22.443   1.00 37.26        S
      ATOM   2389   OH2 TIP S 164     39.475   33.468   33.237   1.00 35.34        S
      ATOM   2390   OH2 TIP S 165     44.277   18.950    5.162   1.00 45.14        S
      ATOM   2391   OH2 TIP S 166     34.797   30.523   10.736   1.00 47.55        S
 20   ATOM   2392   OH2 TIP S 167     46.541    3.526  -14.949   1.00 26.54        S
      ATOM   2393   OH2 TIP S 168     36.333   16.371    1.539   1.00 38.68        S
      ATOM   2394   OH2 TIP S 169     46.761   38.936   27.403   1.00 34.66        S
      ATOM   2395   OH2 TIP S 170     24.163   13.264   11.375   1.00 41.23        S
      ATOM   2396   OH2 TIP S 171     48.459   15.018   31.951   1.00 38.11        S
 25   ATOM   2397   OH2 TIP S 172     34.261   23.193   40.004   1.00 48.96        S
      ATOM   2398   OH2 TIP S 173     45.924   -0.026   13.224   1.00 39.55        S
      ATOM   2399   OH2 TIP S 175     41.384   37.389   32.543   1.00 40.74        S
      ATOM   2400   OH2 TIP S 177     49.394   35.312   27.150   1.00 44.33        S
      ATOM   2401   OH2 TIP S 178     29.066   29.942   34.359   1.00 41.46        S
 30   ATOM   2402   OH2 TIP S 180     49.354   19.467    7.273   1.00 34.56        S
      ATOM   2403   OH2 TIP S 181     25.298   17.029   31.863   1.00 47.74        S
      ATOM   2404   OH2 TIP S 182     37.071   25.027    4.669   1.00 43.87        S
      ATOM   2405   OH2 TIP S 183     22.581    7.487   18.691   1.00 41.75        S
      ATOM   2406   OH2 TIP S 184     32.269    7.011   -1.891   1.00 48.84        S
 35   ATOM   2407   OH2 TIP S 185     48.234    0.494    6.833   1.00 48.16        S
      ATOM   2408   OH2 TIP S 187     20.008   14.658   19.211   1.00 45.27        S
      ATOM   2409   OH2 TIP S 188     49.341   22.698   42.272   1.00 42.20        S
      ATOM   2410   OH2 TIP S 190     61.292   18.260   -8.097   1.00 45.21        S
      ATOM   2411   OH2 TIP S 191     28.152   10.606    2.819   1.00 40.38        S
 40   ATOM   2412   OH2 TIP S 192     25.626   12.619   23.191   1.00 34.27        S
      ATOM   2413   OH2 TIP S 193     59.876   11.603    1.216   1.00 46.54        S
      ATOM   2414   OH2 TIP S 194     57.592   21.183  -10.646   1.00 45.82        S
      ATOM   2415   OH2 TIP S 195     31.509   36.649   21.499   1.00 38.73        S
      ATOM   2416   OH2 TIP S 197     50.270   -1.543   -6.136   1.00 42.66        S
 45   ATOM   2417   OH2 TIP S 198     24.467    8.729   13.088   1.00 42.78        S
      ATOM   2418   OH2 TIP S 199     38.098    8.699   25.759   1.00 32.80        S
      ATOM   2419   OH2 TIP S 200     57.831   11.358  -13.255   1.00 45.31        S
      ATOM   2420   OH2 TIP S 201     23.888   22.328   30.524   1.00 37.12        S
      ATOM   2421   OH2 TIP S 202     47.691   26.068   37.666   1.00 37.92        S
 50   ATOM   2422   OH2 TIP S 203     38.653    7.070   29.307   1.00 50.54        S
      ATOM   2423   OH2 TIP S 206     44.424   27.583    2.092   1.00 53.50        S
      ATOM   2424   OH2 TIP S 212     22.258    2.296   17.948   1.00 47.38        S
      ATOM   2425   OH2 TIP S 214     19.843   17.943   23.303   1.00 30.36        S
      ATOM   2426   OH2 TIP S 216     27.647   11.344   24.681   1.00 31.32        S
 55   ATOM   2427   OH2 TIP S 217     37.953    7.817   -9.284   1.00 45.97        S
      ATOM   2428   OH2 TIP S 218     33.845   34.040   12.124   1.00 38.11        S
      ATOM   2429   OH2 TIP S 219     58.484   15.269   13.717   1.00 38.26        S
      ATOM   2430   OH2 TIP S 220     48.526   40.920   26.583   1.00 35.23        S
      ATOM   2431   OH2 TIP S 222     52.094   21.184   38.122   1.00 29.86        S
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	ATOM	2432	OH2 TIP S 223	36.889	5.881	3.281	1.00	37.63	S
	ATOM	2433	OH2 TIP S 224	47.642	-1.401	-10.684	1.00	34.89	S
	ATOM	2434	OH2 TIP S 226	47.284	2.916	19.133	1.00	34.10	S
	ATOM	2435	OH2 TIP S 227	42.468	4.463	-15.039	1.00	37.98	S
5	ATOM	2436	OH2 TIP S 228	19.169	22.832	21.831	1.00	41.57	S
	ATOM	2437	OH2 TIP S 231	57.592	12.689	14.880	1.00	50.22	S
	ATOM	2438	OH2 TIP S 232	27.102	9.176	5.655	1.00	40.57	S
	ATOM	2439	OH2 TIP S 233	58.618	9.072	-11.925	1.00	50.71	S
	ATOM	2440	OH2 TIP S 234	22.822	25.342	19.945	1.00	34.93	S
10	ATOM	2441	OH2 TIP S 236	24.831	32.218	28.901	1.00	37.69	S
	ATOM	2442	OH2 TIP S 237	20.045	10.774	16.992	1.00	39.57	S
	ATOM	2443	OH2 TIP S 238	58.019	19.850	15.679	1.00	41.42	S
	ATOM	2444	OH2 TIP S 239	19.490	20.949	26.114	1.00	34.55	S
	ATOM	2445	OH2 TIP S 240	61.187	26.377	7.346	1.00	39.68	S
15	ATOM	2446	OH2 TIP S 241	33.680	38.342	19.389	1.00	48.93	S
	ATOM	2447	OH2 TIP S 242	51.539	31.612	10.881	1.00	55.65	S
	ATOM	2448	OH2 TIP S 244	25.872	14.431	30.404	1.00	46.69	S
	ATOM	2449	OH2 TIP S 248	37.332	5.849	9.544	1.00	43.81	S
	ATOM	2450	OH2 TIP S 250	39.087	-1.293	-9.655	1.00	42.96	S
20	ATOM	2451	OH2 TIP S 258	23.938	30.000	30.010	1.00	38.89	S
	ATOM	2452	OH2 TIP S 259	24.949	29.749	32.578	1.00	40.17	S
	ATOM	2453	OH2 TIP S 260	32.111	17.986	1.918	1.00	48.36	S
	ATOM	2454	OH2 TIP S 266	21.404	12.876	25.603	1.00	57.17	S
	ATOM	2455	OH2 TIP S 269	35.425	36.767	12.550	1.00	30.70	S
25	ATOM	2456	OH2 TIP S 270	52.438	25.529	30.131	1.00	44.85	S
	ATOM	2457	OH2 TIP S 271	53.299	20.156	36.003	1.00	37.15	S
	ATOM	2458	OH2 TIP S 272	50.914	6.919	23.723	1.00	43.29	S
	ATOM	2459	OH2 TIP S 274	31.578	30.795	11.014	1.00	50.15	S
	ATOM	2460	OH2 TIP S 275	26.341	7.243	22.447	1.00	39.40	S
30	ATOM	2461	OH2 TIP S 276	60.392	18.195	10.235	1.00	37.91	S
	ATOM	2462	OH2 TIP S 277	47.355	-9.081	-10.821	1.00	48.18	S
	ATOM	2463	OH2 TIP S 279	41.304	6.175	-16.647	1.00	38.12	S
	ATOM	2464	OH2 TIP S 282	33.299	21.620	37.881	1.00	46.29	S
	ATOM	2465	OH2 TIP S 283	56.469	26.112	-8.575	1.00	43.71	S
35	ATOM	2466	OH2 TIP S 287	48.382	26.573	7.246	1.00	41.43	S
	ATOM	2467	OH2 TIP S 288	56.240	7.245	-11.331	1.00	41.79	S
	ATOM	2468	OH2 TIP S 290	49.060	14.978	28.166	1.00	37.03	S
	ATOM	2469	OH2 TIP S 291	37.095	44.270	26.442	1.00	45.08	S
	ATOM	2470	OH2 TIP S 292	47.814	-0.384	-13.299	1.00	48.60	S
40	ATOM	2471	OH2 TIP S 297	58.081	2.784	-7.841	1.00	41.89	S
	ATOM	2472	OH2 TIP S 298	36.447	45.321	18.644	1.00	54.91	S
	ATOM	2473	OH2 TIP S 299	49.029	23.328	1.767	1.00	30.55	S
	ATOM	2474	OH2 TIP S 301	24.375	13.771	8.634	1.00	48.47	S
	ATOM	2475	OH2 TIP S 303	47.904	36.798	28.653	1.00	35.76	S
45	ATOM	2476	OH2 TIP S 305	51.156	40.821	27.172	1.00	43.59	S
	ATOM	2477	OH2 TIP S 306	32.943	28.917	35.227	1.00	42.60	S
	ATOM	2478	OH2 TIP S 307	58.462	28.373	6.251	1.00	46.15	S
	ATOM	2479	OH2 TIP S 308	41.964	30.940	36.712	1.00	48.26	S
	ATOM	2480	OH2 TIP S 313	51.176	-1.922	-3.336	1.00	50.61	S
50	ATOM	2481	OH2 TIP S1001	21.319	36.868	23.805	1.00	36.97	S
	ATOM	2482	OH2 TIP S1002	48.880	32.620	27.617	1.00	44.40	S
	ATOM	2483	OH2 TIP S1003	61.880	19.473	11.767	1.00	45.49	S
	ATOM	2484	OH2 TIP S1004	52.770	21.424	26.815	1.00	24.43	S
	ATOM	2485	OH2 TIP S1005	35.373	29.094	36.197	1.00	35.97	S
55	ATOM	2486	OH2 TIP S1006	40.815	-6.636	4.389	1.00	43.15	S
	ATOM	2487	OH2 TIP S1007	44.953	1.286	11.272	1.00	49.45	S
	ATOM	2488	OH2 TIP S1010	21.004	16.168	27.009	1.00	48.51	S
	ATOM	2489	OH2 TIP S1011	47.094	41.786	9.243	1.00	50.10	S
	ATOM	2490	OH2 TIP S1012	32.479	2.978	14.158	1.00	49.47	S

	ATOM	2491	O12	GLC	G	1	48.557	11.372	-12.279	1.00	40.72	G
	ATOM	2492	C11	GLC	G	1	48.836	12.133	-11.097	1.00	38.05	G
	ATOM	2493	C13	GLC	G	1	49.266	13.554	-11.476	1.00	38.09	G
	ATOM	2494	O14	GLC	G	1	49.559	14.299	-10.292	1.00	33.99	G
5	ATOM	2495	C15	GLC	G	1	48.150	14.257	-12.257	1.00	37.32	G
	ATOM	2496	O16	GLC	G	1	48.574	15.582	-12.604	1.00	36.74	G
	ATOM	2497	O12	GLC	G	2	40.114	-6.634	-6.562	1.00	33.52	G
	ATOM	2498	C11	GLC	G	2	38.967	-6.592	-7.404	1.00	31.05	G
	ATOM	2499	C13	GLC	G	2	37.712	-6.417	-6.552	1.00	31.56	G
10	ATOM	2500	O14	GLC	G	2	36.554	-6.406	-7.389	1.00	30.70	G
	ATOM	2501	C15	GLC	G	2	37.792	-5.109	-5.761	1.00	30.03	G
	ATOM	2502	O16	GLC	G	2	36.609	-4.961	-4.975	1.00	29.66	G
	ATOM	2503	O12	GLC	G	3	44.030	8.243	-13.470	1.00	37.90	G
	ATOM	2504	C11	GLC	G	3	43.950	9.648	-13.690	1.00	38.47	G
15	ATOM	2505	C13	GLC	G	3	42.747	9.974	-14.579	1.00	39.52	G
	ATOM	2506	O14	GLC	G	3	41.551	9.526	-13.942	1.00	39.39	G
	ATOM	2507	C15	GLC	G	3	42.878	9.280	-15.934	1.00	41.43	G
	ATOM	2508	O16	GLC	G	3	41.736	9.613	-16.731	1.00	40.78	G
	ATOM	2509	O12	GLC	G	5	40.556	1.005	2.289	1.00	45.25	G
20	ATOM	2510	C11	GLC	G	5	40.966	2.332	1.960	1.00	40.56	G
	ATOM	2511	C13	GLC	G	5	40.187	3.327	2.814	1.00	40.36	G
	ATOM	2512	O14	GLC	G	5	38.791	3.169	2.572	1.00	40.71	G
	ATOM	2513	C15	GLC	G	5	40.619	4.751	2.464	1.00	40.04	G
	ATOM	2514	O16	GLC	G	5	39.885	5.681	3.256	1.00	36.89	G
25	ATOM	2515	O12	GLC	G	6	36.951	22.702	40.046	1.00	63.04	G
	ATOM	2516	C11	GLC	G	6	37.592	21.583	39.422	1.00	62.46	G
	ATOM	2517	C13	GLC	G	6	38.104	21.978	38.030	1.00	61.14	G
	ATOM	2518	O14	GLC	G	6	39.034	23.054	38.168	1.00	61.72	G
	ATOM	2519	C15	GLC	G	6	36.948	22.429	37.126	1.00	60.51	G
30	ATOM	2520	O16	GLC	G	6	35.992	21.372	36.960	1.00	58.61	G
	ATOM	2521	O12	GLC	G	7	37.316	0.281	14.299	1.00	73.45	G
	ATOM	2522	C11	GLC	G	7	37.655	-0.758	15.222	1.00	72.78	G
	ATOM	2523	C13	GLC	G	7	36.592	-1.856	15.157	1.00	72.98	G
	ATOM	2524	O14	GLC	G	7	35.320	-1.299	15.498	1.00	73.88	G
35	ATOM	2525	C15	GLC	G	7	36.924	-2.989	16.134	1.00	73.66	G
	ATOM	2526	O16	GLC	G	7	36.972	-2.493	17.478	1.00	75.38	G
	ATOM	2527	O12	GLC	G	8	51.921	21.898	5.908	1.00	62.51	G
	ATOM	2528	C11	GLC	G	8	52.447	20.871	5.063	1.00	63.42	G
	ATOM	2529	C13	GLC	G	8	51.476	20.597	3.908	1.00	64.28	G
40	ATOM	2530	O14	GLC	G	8	51.297	21.794	3.150	1.00	66.28	G
	ATOM	2531	C15	GLC	G	8	50.121	20.137	4.448	1.00	64.49	G
	ATOM	2532	O16	GLC	G	8	49.233	19.886	3.357	1.00	64.01	G
	ATOM	2533	O12	GLC	G	10	36.044	37.499	29.523	1.00	56.89	G
	ATOM	2534	C11	GLC	G	10	35.164	36.645	30.259	1.00	56.97	G
45	ATOM	2535	C13	GLC	G	10	33.849	36.489	29.494	1.00	56.11	G
	ATOM	2536	O14	GLC	G	10	33.248	37.772	29.308	1.00	56.44	G
	ATOM	2537	C15	GLC	G	10	32.900	35.580	30.277	1.00	55.84	G
	ATOM	2538	O16	GLC	G	10	31.674	35.442	29.557	1.00	55.39	G
	ATOM	2539	O3G	ATP	N	1	46.280	25.658	5.170	1.00	51.49	N
50	ATOM	2540	PG	ATP	N	1	46.464	25.053	3.691	1.00	52.22	N
	ATOM	2541	O1G	ATP	N	1	47.406	23.911	3.763	1.00	51.41	N
	ATOM	2542	O2G	ATP	N	1	46.794	26.182	2.784	1.00	52.07	N
	ATOM	2543	O3B	ATP	N	1	44.976	24.513	3.344	1.00	51.01	N
	ATOM	2544	PB	ATP	N	1	44.560	22.969	3.605	1.00	50.20	N
55	ATOM	2545	O1B	ATP	N	1	43.083	22.898	3.669	1.00	49.41	N
	ATOM	2546	O2B	ATP	N	1	45.345	22.474	4.766	1.00	50.34	N
	ATOM	2547	O3A	ATP	N	1	45.070	22.231	2.255	1.00	47.77	N
	ATOM	2548	PA	ATP	N	1	45.075	20.613	2.121	1.00	42.84	N
	ATOM	2549	O1A	ATP	N	1	45.547	20.291	0.754	1.00	43.81	N

ATOM	2550	O2A	ATP	N	1	45.807	20.035	3.270	1.00	45.03	N
ATOM	2551	O5*	ATP	N	1	43.516	20.223	2.245	1.00	41.73	N
ATOM	2552	C5*	ATP	N	1	42.528	20.925	1.489	1.00	37.57	N
ATOM	2553	C4*	ATP	N	1	41.127	20.379	1.776	1.00	39.45	N
ATOM	2554	O4*	ATP	N	1	40.907	19.024	1.279	1.00	37.72	N
ATOM	2555	C3*	ATP	N	1	40.777	20.321	3.251	1.00	38.48	N
ATOM	2556	O3*	ATP	N	1	40.360	21.615	3.697	1.00	40.42	N
ATOM	2557	C2*	ATP	N	1	39.608	19.374	3.270	1.00	37.58	N
ATOM	2558	O2*	ATP	N	1	38.410	20.076	2.924	1.00	35.98	N
ATOM	2559	C1*	ATP	N	1	39.939	18.346	2.173	1.00	35.55	N
ATOM	2560	N9	ATP	N	1	40.628	17.156	2.747	1.00	31.76	N
ATOM	2561	C8	ATP	N	1	41.864	17.126	3.274	1.00	30.49	N
ATOM	2562	N7	ATP	N	1	42.143	15.877	3.667	1.00	29.75	N
ATOM	2563	C5	ATP	N	1	41.088	15.118	3.390	1.00	27.49	N
ATOM	2564	C4	ATP	N	1	40.125	15.925	2.810	1.00	30.02	N
ATOM	2565	N3	ATP	N	1	38.937	15.389	2.431	1.00	27.11	N
ATOM	2566	C2	ATP	N	1	38.679	14.085	2.615	1.00	25.62	N
ATOM	2567	N1	ATP	N	1	39.597	13.283	3.175	1.00	21.76	N
ATOM	2568	C6	ATP	N	1	40.800	13.768	3.571	1.00	23.90	N
ATOM	2569	N6	ATP	N	1	41.698	12.964	4.127	1.00	21.94	N
ATOM	2570	S	SO4	I	1	58.680	8.493	-0.639	1.00	56.05	I
ATOM	2571	O1	SO4	I	1	57.956	7.875	0.483	1.00	58.83	I
ATOM	2572	O2	SO4	I	1	57.886	9.607	-1.188	1.00	57.04	I
ATOM	2573	O3	SO4	I	1	58.906	7.478	-1.683	1.00	57.47	I
ATOM	2574	O4	SO4	I	1	59.976	9.008	-0.156	1.00	57.51	I
ATOM	2575	S	SO4	I	2	39.339	4.855	7.057	1.00	84.24	I
ATOM	2576	O1	SO4	I	2	39.390	6.175	7.711	1.00	85.02	I
ATOM	2577	O2	SO4	I	2	40.101	4.897	5.797	1.00	84.75	I
ATOM	2578	O3	SO4	I	2	37.936	4.506	6.766	1.00	84.94	I
ATOM	2579	O4	SO4	I	2	39.931	3.842	7.954	1.00	84.44	I
ATOM	2580	S	SO4	I	3	38.987	-2.256	3.310	1.00	58.58	I
ATOM	2581	O1	SO4	I	3	37.734	-1.675	3.827	1.00	59.11	I
ATOM	2582	O2	SO4	I	3	39.460	-1.454	2.172	1.00	59.91	I
ATOM	2583	O3	SO4	I	3	38.743	-3.640	2.866	1.00	60.97	I
ATOM	2584	O4	SO4	I	3	40.014	-2.260	4.369	1.00	59.58	I
ATOM	2585	S	SO4	I	4	34.397	5.289	30.981	1.00	64.34	I
ATOM	2586	O1	SO4	I	4	33.627	6.528	30.742	1.00	60.43	I
ATOM	2587	O2	SO4	I	4	34.337	4.427	29.782	1.00	60.11	I
ATOM	2588	O3	SO4	I	4	33.816	4.572	32.133	1.00	64.39	I
ATOM	2589	O4	SO4	I	4	35.806	5.626	31.277	1.00	63.55	I
ATOM	2590	S	SO4	I	5	55.074	-6.984	-3.711	1.00	75.40	I
ATOM	2591	O1	SO4	I	5	54.657	-7.518	-2.399	1.00	74.66	I
ATOM	2592	O2	SO4	I	5	54.209	-5.845	-4.065	1.00	74.96	I
ATOM	2593	O3	SO4	I	5	54.950	-8.034	-4.742	1.00	74.22	I
ATOM	2594	O4	SO4	I	5	56.477	-6.532	-3.633	1.00	75.15	I
ATOM	2595	O2	PO4	P	100	57.362	24.998	13.149	1.00	66.76	P
ATOM	2596	O3	PO4	P	100	59.399	26.166	13.761	1.00	66.89	P
ATOM	2597	O4	PO4	P	100	57.761	25.606	15.462	1.00	67.43	P
ATOM	2598	O1	PO4	P	100	57.264	27.325	13.818	1.00	65.91	P
ATOM	2599	P	PO4	P	100	57.947	26.025	14.048	1.00	66.69	P
ATOM	2600	CB	GLU		80	50.411	3.975	-13.538	0.50	23.31	AC2
ATOM	2601	CG	GLU		80	51.306	4.896	-14.362	0.50	24.09	AC2
ATOM	2602	CD	GLU		80	52.180	5.798	-13.509	0.50	25.31	AC2
ATOM	2603	OE1	GLU		80	52.841	5.289	-12.580	0.50	22.80	AC2
ATOM	2604	OE2	GLU		80	52.212	7.018	-13.774	0.50	28.07	AC2
ATOM	2605	CB	SER		105	37.582	-1.281	-6.192	0.50	21.16	AC2
ATOM	2606	OG	SER		105	37.127	-1.871	-4.988	0.50	20.42	AC2
ATOM	2607	CB	ARG		116	59.520	22.977	-7.867	0.50	31.00	AC2
ATOM	2608	CG	ARG		116	60.312	24.192	-8.323	0.50	32.50	AC2

```
      ATOM   2609  CD   ARG   116    60.266  24.349  -9.838  0.50 34.11      AC2
      ATOM   2610  NE   ARG   116    61.045  25.499 -10.290  0.50 36.67      AC2
      ATOM   2611  CZ   ARG   116    60.729  26.766 -10.035  0.50 37.26      AC2
      ATOM   2612  NH1  ARG   116    59.642  27.053  -9.331  0.50 38.99      AC2
  5   ATOM   2613  NH2  ARG   116    61.503  27.746 -10.479  0.50 37.83      AC2
      ATOM   2614  CB   LEU   145    49.693   8.642   6.631  0.50 15.29      AC2
      ATOM   2615  CG   LEU   145    50.783   8.664   5.552  0.50 14.29      AC2
      ATOM   2616  CD1  LEU   145    50.264   9.373   4.305  0.50  8.20      AC2
      ATOM   2617  CD2  LEU   145    52.030   9.361   6.087  0.50 10.66      AC2
 10   ATOM   2618  CB   ARG   183    27.455  16.155  24.989  0.50 19.21      AC2
      ATOM   2619  CG   ARG   183    28.077  15.397  26.147  0.50 18.46      AC2
      ATOM   2620  CD   ARG   183    27.002  14.945  27.127  0.50 19.72      AC2
      ATOM   2621  NE   ARG   183    26.016  14.086  26.478  0.50 18.79      AC2
      ATOM   2622  CZ   ARG   183    24.703  14.279  26.539  0.50 18.52      AC2
 15   ATOM   2623  NH1  ARG   183    24.213  15.305  27.221  0.50 15.35      AC2
      ATOM   2624  NH2  ARG   183    23.881  13.445  25.915  0.50 17.55      AC2
      ATOM   2625  CB   SER   191    38.479  10.847  23.036  0.50 16.57      AC2
      ATOM   2626  OG   SER   191    37.418  10.765  23.973  0.50 18.62      AC2
      ATOM   2627  CB   GLU   209    38.645  24.079   8.551  0.50 22.02      AC2
 20   ATOM   2628  CG   GLU   209    37.769  25.296   8.263  0.50 23.40      AC2
      ATOM   2629  CD   GLU   209    37.513  26.175   9.483  0.50 24.27      AC2
      ATOM   2630  OE1  GLU   209    37.076  27.328   9.288  0.50 25.25      AC2
      ATOM   2631  OE2  GLU   209    37.737  25.727  10.629  0.50 20.24      AC2
      ATOM   2632  CB   GLN   247    38.598  32.546  14.790  0.50 18.71      AC2
 25   ATOM   2633  CG   GLN   247    38.077  33.665  13.900  0.50 16.95      AC2
      ATOM   2634  CD   GLN   247    38.614  33.598  12.479  0.50 19.13      AC2
      ATOM   2635  OE1  GLN   247    39.763  33.221  12.246  0.50 17.24      AC2
      ATOM   2636  NE2  GLN   247    37.780  33.979  11.520  0.50 19.88      AC2
      ATOM   2637  CE   LYS   315    34.978  25.150  36.369  0.50 20.49      AC2
 30   ATOM   2638  NZ   LYS   315    34.183  24.074  37.023  0.50 17.05      AC2
      ATOM   2639  CB   GLN   352    32.365   1.170  19.731  0.50 31.10      AC2
      ATOM   2640  CG   GLN   352    33.833   0.778  19.683  0.50 32.11      AC2
      ATOM   2641  CD   GLN   352    34.190   0.027  18.419  0.50 33.04      AC2
      ATOM   2642  OE1  GLN   352    33.906   0.485  17.314  0.50 34.87      AC2
 35   ATOM   2643  NE2  GLN   352    34.819  -1.133  18.575  0.50 32.08      AC2
      END
```

Example 3: Co-ordinates for the PDK1 fragment without alternate side chains.

40

```
      REMARK coordinates from restrained individual B-factor refinement
      REMARK refinement resolution: 25.0 - 2.0 A
      REMARK starting r= 0.1972 free_r= 0.2220
      REMARK final    r= 0.1954 free_r= 0.2224
 45   REMARK B rmsd for bonded mainchain atoms=  1.501  target= 1.5
      REMARK B rmsd for bonded sidechain atoms=  2.235  target= 2.0
      REMARK B rmsd for angle mainchain atoms=  2.347  target= 2.0
      REMARK B rmsd for angle sidechain atoms=  3.302  target= 2.5
      REMARK rweight=  0.0900 (with wa= 1.29263)
 50   REMARK target= mlf  steps= 30
      REMARK  sg= P3(2)21 a= 123.013 b= 123.013 c= 47.624 alpha= 90 beta= 90
      gamma= 120
      REMARK parameter file 1  : /dd1/david/projects/PDK1_new/CNS/prot.par
      REMARK parameter file 2  : /dd1/david/projects/PDK1_new/CNS/atp.par
 55   REMARK parameter file 3  : CNS_TOPPAR:water_rep.param
      REMARK parameter file 4  : CNS_TOPPAR:ion.param
```

```
      REMARK parameter file 5  : /dd1/david/projects/PDK1_new/CNS/glycerol.par
      REMARK molecular structure file: ../generate/alternate.mtf
      REMARK input coordinates: ../minimize/minimize.pdb
      REMARK reflection file= ../../1/hkl/cns.hkl
  5   REMARK ncs= none
      REMARK B-correction resolution: 6.0 - 2.0
      REMARK initial B-factor correction applied to fobs :
      REMARK   B11= -2.766 B22= -2.766 B33=   5.532
      REMARK   B12= -0.375 B13=   0.000 B23=   0.000
 10   REMARK B-factor correction applied to coordinate array B:     0.031
      REMARK bulk solvent: density level= 0.378441 e/A^3, B-factor= 52.6885 A^2
      REMARK reflections with |Fobs|/sigma_F < 0.0 rejected
      REMARK reflections with |Fobs| > 10000 * rms(Fobs) rejected
      REMARK theoretical total number of refl. in resol. range:    28210 ( 100.0
 15   % )
      REMARK number of unobserved reflections (no entry or |F|=0):    568 (   2.0
      % )
      REMARK number of reflections rejected:                            0 (   0.0
      % )
 20   REMARK total number of reflections used:                     27642 (  98.0
      % )
      REMARK number of reflections in working set:                 27063 (  95.9
      % )
      REMARK number of reflections in test set:                      579 (   2.1
 25   % )
      CRYST1  123.013  123.013   47.624  90.00  90.00 120.00 P 32 2 1
      REMARK FILENAME="bindividual.pdb"
      REMARK DATE:16-Apr-2002  18:31:12      created by user: david
      REMARK VERSION:1.0
 30   ATOM      1  CB  PRO A  71      58.912  -7.251   8.216  1.00 67.78      A
      ATOM      2  CG  PRO A  71      59.621  -6.941   9.534  1.00 69.16      A
      ATOM      3  C   PRO A  71      59.493  -6.506   5.894  1.00 67.06      A
      ATOM      4  O   PRO A  71      59.196  -5.318   5.766  1.00 66.66      A
      ATOM      5  N   PRO A  71      60.984  -6.073   7.833  1.00 67.86      A
 35   ATOM      6  CD  PRO A  71      60.554  -5.762   9.207  1.00 68.24      A
      ATOM      7  CA  PRO A  71      60.040  -7.035   7.217  1.00 67.75      A
      ATOM      8  N   PRO A  72      59.356  -7.385   4.890  1.00 66.32      A
      ATOM      9  CD  PRO A  72      59.712  -8.816   4.898  1.00 67.17      A
      ATOM     10  CA  PRO A  72      58.840  -6.986   3.578  1.00 65.61      A
 40   ATOM     11  CB  PRO A  72      58.672  -8.321   2.858  1.00 66.47      A
      ATOM     12  CG  PRO A  72      59.796  -9.133   3.419  1.00 67.57      A
      ATOM     13  C   PRO A  72      57.527  -6.208   3.673  1.00 63.94      A
      ATOM     14  O   PRO A  72      56.710  -6.451   4.561  1.00 64.11      A
      ATOM     15  N   ALA A  73      57.341  -5.268   2.753  1.00 61.57      A
 45   ATOM     16  CA  ALA A  73      56.133  -4.454   2.708  1.00 58.74      A
      ATOM     17  CB  ALA A  73      56.438  -3.030   3.165  1.00 58.05      A
      ATOM     18  C   ALA A  73      55.626  -4.448   1.271  1.00 56.78      A
      ATOM     19  O   ALA A  73      56.347  -4.834   0.349  1.00 56.95      A
      ATOM     20  N   PRO A  74      54.372  -4.024   1.057  1.00 54.15      A
 50   ATOM     21  CD  PRO A  74      53.335  -3.610   2.018  1.00 53.31      A
      ATOM     22  CA  PRO A  74      53.856  -4.003  -0.314  1.00 52.54      A
      ATOM     23  CB  PRO A  74      52.474  -3.375  -0.148  1.00 52.86      A
      ATOM     24  CG  PRO A  74      52.067  -3.824   1.226  1.00 52.88      A
      ATOM     25  C   PRO A  74      54.772  -3.167  -1.204  1.00 50.08      A
 55   ATOM     26  O   PRO A  74      55.559  -2.361  -0.708  1.00 49.96      A
      ATOM     27  N   ALA A  75      54.680  -3.366  -2.514  1.00 47.58      A
      ATOM     28  CA  ALA A  75      55.503  -2.602  -3.446  1.00 44.69      A
      ATOM     29  CB  ALA A  75      55.312  -3.121  -4.870  1.00 46.14      A
      ATOM     30  C   ALA A  75      55.100  -1.134  -3.371  1.00 41.55      A
```

	ATOM	31	O	ALA	A	75	53.947	-0.813	-3.086	1.00	41.01	A
	ATOM	32	N	LYS	A	76	56.053	-0.245	-3.619	1.00	38.31	A
	ATOM	33	CA	LYS	A	76	55.781	1.184	-3.588	1.00	35.72	A
	ATOM	34	CB	LYS	A	76	57.053	1.957	-3.930	1.00	37.70	A
5	ATOM	35	CG	LYS	A	76	57.123	3.356	-3.350	1.00	40.99	A
	ATOM	36	CD	LYS	A	76	57.262	3.316	-1.836	1.00	40.04	A
	ATOM	37	CE	LYS	A	76	57.511	4.705	-1.277	1.00	42.08	A
	ATOM	38	NZ	LYS	A	76	57.681	4.695	0.202	1.00	42.99	A
	ATOM	39	C	LYS	A	76	54.708	1.467	-4.638	1.00	32.65	A
10	ATOM	40	O	LYS	A	76	54.814	1.005	-5.770	1.00	31.41	A
	ATOM	41	N	LYS	A	77	53.668	2.207	-4.270	1.00	28.59	A
	ATOM	42	CA	LYS	A	77	52.619	2.517	-5.232	1.00	25.72	A
	ATOM	43	CB	LYS	A	77	51.316	2.865	-4.509	1.00	26.22	A
	ATOM	44	CG	LYS	A	77	50.796	1.731	-3.631	1.00	27.15	A
15	ATOM	45	CD	LYS	A	77	49.487	2.089	-2.967	1.00	26.80	A
	ATOM	46	CE	LYS	A	77	49.136	1.091	-1.870	1.00	27.31	A
	ATOM	47	NZ	LYS	A	77	48.998	-0.296	-2.380	1.00	27.17	A
	ATOM	48	C	LYS	A	77	53.053	3.668	-6.137	1.00	24.67	A
	ATOM	49	O	LYS	A	77	54.010	4.377	-5.829	1.00	21.60	A
20	ATOM	50	N	ARG	A	78	52.351	3.838	-7.254	1.00	23.66	A
	ATOM	51	CA	ARG	A	78	52.662	4.897	-8.211	1.00	26.14	A
	ATOM	52	CB	ARG	A	78	53.574	4.344	-9.318	1.00	28.57	A
	ATOM	53	CG	ARG	A	78	53.017	3.139	-10.050	1.00	34.78	A
	ATOM	54	CD	ARG	A	78	54.092	2.465	-10.896	1.00	40.96	A
25	ATOM	55	NE	ARG	A	78	53.560	1.364	-11.700	1.00	48.93	A
	ATOM	56	CZ	ARG	A	78	52.985	0.270	-11.203	1.00	52.58	A
	ATOM	57	NH1	ARG	A	78	52.860	0.113	-9.889	1.00	54.60	A
	ATOM	58	NH2	ARG	A	78	52.530	-0.672	-12.022	1.00	54.09	A
	ATOM	59	C	ARG	A	78	51.382	5.488	-8.803	1.00	23.76	A
30	ATOM	60	O	ARG	A	78	50.311	4.888	-8.706	1.00	24.25	A
	ATOM	61	N	PRO	A	79	51.475	6.676	-9.428	1.00	21.76	A
	ATOM	62	CD	PRO	A	79	52.691	7.475	-9.668	1.00	20.82	A
	ATOM	63	CA	PRO	A	79	50.301	7.325	-10.021	1.00	21.96	A
	ATOM	64	CB	PRO	A	79	50.910	8.481	-10.816	1.00	22.27	A
35	ATOM	65	CG	PRO	A	79	52.124	8.831	-10.014	1.00	22.12	A
	ATOM	66	C	PRO	A	79	49.446	6.413	-10.903	1.00	22.86	A
	ATOM	67	O	PRO	A	79	48.213	6.461	-10.842	1.00	20.52	A
	ATOM	68	N	GLU	A	80	50.103	5.586	-11.714	1.00	21.87	A
	ATOM	69	CA	GLU	A	80	49.403	4.685	-12.628	1.00	22.99	A
40	ATOM	70	CB	GLU	A	80	50.393	3.994	-13.571	1.00	25.24	A
	ATOM	71	CG	GLU	A	80	51.230	2.907	-12.925	1.00	28.75	A
	ATOM	72	CD	GLU	A	80	52.157	2.224	-13.913	1.00	31.99	A
	ATOM	73	OE1	GLU	A	80	53.072	2.897	-14.433	1.00	34.34	A
	ATOM	74	OE2	GLU	A	80	51.969	1.015	-14.172	1.00	32.83	A
45	ATOM	75	C	GLU	A	80	48.556	3.631	-11.912	1.00	22.09	A
	ATOM	76	O	GLU	A	80	47.692	3.013	-12.530	1.00	22.37	A
	ATOM	77	N	ASP	A	81	48.804	3.413	-10.622	1.00	19.97	A
	ATOM	78	CA	ASP	A	81	48.026	2.423	-9.874	1.00	19.93	A
	ATOM	79	CB	ASP	A	81	48.736	2.029	-8.571	1.00	21.19	A
50	ATOM	80	CG	ASP	A	81	50.089	1.380	-8.807	1.00	22.46	A
	ATOM	81	OD1	ASP	A	81	50.195	0.554	-9.731	1.00	24.22	A
	ATOM	82	OD2	ASP	A	81	51.043	1.685	-8.058	1.00	23.33	A
	ATOM	83	C	ASP	A	81	46.652	2.975	-9.518	1.00	20.85	A
	ATOM	84	O	ASP	A	81	45.793	2.246	-9.015	1.00	19.96	A
55	ATOM	85	N	PHE	A	82	46.445	4.258	-9.804	1.00	18.91	A
	ATOM	86	CA	PHE	A	82	45.200	4.934	-9.465	1.00	19.30	A
	ATOM	87	CB	PHE	A	82	45.475	6.027	-8.427	1.00	18.43	A
	ATOM	88	CG	PHE	A	82	46.134	5.531	-7.175	1.00	18.01	A
	ATOM	89	CD1	PHE	A	82	45.371	5.136	-6.084	1.00	17.19	A

	ATOM	90	CD2	PHE	A	82	47.520	5.460	-7.086	1.00	18.99	A
	ATOM	91	CE1	PHE	A	82	45.977	4.676	-4.918	1.00	17.12	A
	ATOM	92	CE2	PHE	A	82	48.137	5.000	-5.925	1.00	19.64	A
	ATOM	93	CZ	PHE	A	82	47.361	4.607	-4.838	1.00	18.00	A
5	ATOM	94	C	PHE	A	82	44.476	5.596	-10.621	1.00	20.81	A
	ATOM	95	O	PHE	A	82	45.066	5.933	-11.649	1.00	20.34	A
	ATOM	96	N	LYS	A	83	43.182	5.792	-10.411	1.00	19.80	A
	ATOM	97	CA	LYS	A	83	42.321	6.478	-11.353	1.00	21.65	A
	ATOM	98	CB	LYS	A	83	41.096	5.625	-11.687	1.00	22.02	A
10	ATOM	99	CG	LYS	A	83	40.062	6.326	-12.550	1.00	28.93	A
	ATOM	100	CD	LYS	A	83	38.974	5.355	-12.981	1.00	34.20	A
	ATOM	101	CE	LYS	A	83	37.909	6.042	-13.824	1.00	38.10	A
	ATOM	102	NZ	LYS	A	83	37.179	7.086	-13.043	1.00	43.33	A
	ATOM	103	C	LYS	A	83	41.913	7.702	-10.541	1.00	20.74	A
15	ATOM	104	O	LYS	A	83	41.084	7.606	-9.635	1.00	20.98	A
	ATOM	105	N	PHE	A	84	42.513	8.848	-10.835	1.00	19.99	A
	ATOM	106	CA	PHE	A	84	42.188	10.049	-10.083	1.00	18.63	A
	ATOM	107	CB	PHE	A	84	43.279	11.103	-10.258	1.00	18.95	A
	ATOM	108	CG	PHE	A	84	44.571	10.741	-9.587	1.00	17.68	A
20	ATOM	109	CD1	PHE	A	84	45.498	9.926	-10.224	1.00	18.16	A
	ATOM	110	CD2	PHE	A	84	44.843	11.183	-8.299	1.00	19.66	A
	ATOM	111	CE1	PHE	A	84	46.676	9.556	-9.589	1.00	18.09	A
	ATOM	112	CE2	PHE	A	84	46.021	10.816	-7.653	1.00	18.89	A
	ATOM	113	CZ	PHE	A	84	46.936	10.002	-8.301	1.00	17.33	A
25	ATOM	114	C	PHE	A	84	40.834	10.617	-10.460	1.00	19.69	A
	ATOM	115	O	PHE	A	84	40.391	10.489	-11.601	1.00	20.72	A
	ATOM	116	N	GLY	A	85	40.178	11.233	-9.484	1.00	16.80	A
	ATOM	117	CA	GLY	A	85	38.872	11.810	-9.716	1.00	17.73	A
	ATOM	118	C	GLY	A	85	38.819	13.280	-9.346	1.00	18.75	A
30	ATOM	119	O	GLY	A	85	39.740	14.043	-9.650	1.00	18.45	A
	ATOM	120	N	LYS	A	86	37.753	13.673	-8.659	1.00	16.00	A
	ATOM	121	CA	LYS	A	86	37.571	15.064	-8.278	1.00	18.26	A
	ATOM	122	CB	LYS	A	86	36.133	15.302	-7.812	1.00	19.00	A
	ATOM	123	CG	LYS	A	86	35.793	14.660	-6.481	1.00	21.55	A
35	ATOM	124	CD	LYS	A	86	34.368	14.981	-6.066	1.00	26.48	A
	ATOM	125	CE	LYS	A	86	33.994	14.239	-4.793	1.00	31.92	A
	ATOM	126	NZ	LYS	A	86	32.568	14.457	-4.412	1.00	35.36	A
	ATOM	127	C	LYS	A	86	38.523	15.571	-7.202	1.00	18.57	A
	ATOM	128	O	LYS	A	86	39.045	14.807	-6.385	1.00	16.77	A
40	ATOM	129	N	ILE	A	87	38.737	16.881	-7.227	1.00	17.88	A
	ATOM	130	CA	ILE	A	87	39.577	17.554	-6.256	1.00	18.26	A
	ATOM	131	CB	ILE	A	87	39.994	18.952	-6.772	1.00	19.60	A
	ATOM	132	CG2	ILE	A	87	40.593	19.786	-5.628	1.00	18.73	A
	ATOM	133	CG1	ILE	A	87	40.968	18.786	-7.945	1.00	21.16	A
45	ATOM	134	CD1	ILE	A	87	41.412	20.087	-8.588	1.00	25.26	A
	ATOM	135	C	ILE	A	87	38.731	17.709	-4.997	1.00	19.67	A
	ATOM	136	O	ILE	A	87	37.628	18.249	-5.052	1.00	20.41	A
	ATOM	137	N	LEU	A	88	39.240	17.229	-3.867	1.00	19.15	A
	ATOM	138	CA	LEU	A	88	38.508	17.324	-2.611	1.00	20.68	A
50	ATOM	139	CB	LEU	A	88	38.870	16.151	-1.700	1.00	19.97	A
	ATOM	140	CG	LEU	A	88	38.529	14.759	-2.237	1.00	19.24	A
	ATOM	141	CD1	LEU	A	88	39.090	13.692	-1.311	1.00	21.41	A
	ATOM	142	CD2	LEU	A	88	37.029	14.622	-2.359	1.00	18.84	A
	ATOM	143	C	LEU	A	88	38.815	18.632	-1.901	1.00	23.11	A
55	ATOM	144	O	LEU	A	88	37.999	19.146	-1.139	1.00	25.10	A
	ATOM	145	N	GLY	A	89	39.997	19.174	-2.149	1.00	24.09	A
	ATOM	146	CA	GLY	A	89	40.367	20.418	-1.507	1.00	24.27	A
	ATOM	147	C	GLY	A	89	41.658	20.954	-2.078	1.00	25.47	A
	ATOM	148	O	GLY	A	89	42.445	20.202	-2.666	1.00	22.19	A

	ATOM	149	N	GLU A	90	41.870	22.254	-1.906	1.00	26.22	A
	ATOM	150	CA	GLU A	90	43.064	22.924	-2.404	1.00	29.96	A
	ATOM	151	CB	GLU A	90	42.698	23.814	-3.596	1.00	30.75	A
	ATOM	152	CG	GLU A	90	42.267	23.038	-4.831	1.00	34.32	A
5	ATOM	153	CD	GLU A	90	41.711	23.930	-5.927	1.00	38.27	A
	ATOM	154	OE1	GLU A	90	40.590	24.456	-5.764	1.00	40.57	A
	ATOM	155	OE2	GLU A	90	42.398	24.110	-6.952	1.00	40.90	A
	ATOM	156	C	GLU A	90	43.711	23.768	-1.313	1.00	30.68	A
	ATOM	157	O	GLU A	90	43.049	24.574	-0.668	1.00	32.83	A
10	ATOM	158	N	GLY A	91	45.006	23.566	-1.104	1.00	29.66	A
	ATOM	159	CA	GLY A	91	45.724	24.332	-0.104	1.00	29.40	A
	ATOM	160	C	GLY A	91	46.795	25.151	-0.798	1.00	29.98	A
	ATOM	161	O	GLY A	91	46.894	25.130	-2.028	1.00	28.16	A
	ATOM	162	N	SER A	92	47.605	25.870	-0.029	1.00	28.30	A
15	ATOM	163	CA	SER A	92	48.653	26.681	-0.633	1.00	30.50	A
	ATOM	164	CB	SER A	92	49.165	27.717	0.370	1.00	32.43	A
	ATOM	165	OG	SER A	92	49.520	27.099	1.593	1.00	40.94	A
	ATOM	166	C	SER A	92	49.815	25.843	-1.164	1.00	29.77	A
	ATOM	167	O	SER A	92	50.456	26.221	-2.143	1.00	30.46	A
20	ATOM	168	N	PHE A	93	50.087	24.703	-0.536	1.00	27.65	A
	ATOM	169	CA	PHE A	93	51.185	23.855	-0.995	1.00	26.34	A
	ATOM	170	CB	PHE A	93	52.281	23.785	0.068	1.00	27.95	A
	ATOM	171	CG	PHE A	93	52.861	25.117	0.406	1.00	31.06	A
	ATOM	172	CD1	PHE A	93	52.283	25.909	1.392	1.00	29.96	A
25	ATOM	173	CD2	PHE A	93	53.949	25.613	-0.308	1.00	31.38	A
	ATOM	174	CE1	PHE A	93	52.779	27.181	1.665	1.00	32.69	A
	ATOM	175	CE2	PHE A	93	54.452	26.883	-0.044	1.00	32.63	A
	ATOM	176	CZ	PHE A	93	53.864	27.670	0.945	1.00	31.81	A
	ATOM	177	C	PHE A	93	50.759	22.445	-1.365	1.00	25.39	A
30	ATOM	178	O	PHE A	93	51.601	21.559	-1.522	1.00	24.59	A
	ATOM	179	N	SER A	94	49.457	22.235	-1.519	1.00	23.63	A
	ATOM	180	CA	SER A	94	48.965	20.912	-1.860	1.00	21.43	A
	ATOM	181	CB	SER A	94	49.017	20.013	-0.628	1.00	21.42	A
	ATOM	182	OG	SER A	94	48.091	20.475	0.340	1.00	21.19	A
35	ATOM	183	C	SER A	94	47.539	20.925	-2.378	1.00	19.82	A
	ATOM	184	O	SER A	94	46.795	21.882	-2.173	1.00	18.76	A
	ATOM	185	N	THR A	95	47.174	19.832	-3.038	1.00	19.38	A
	ATOM	186	CA	THR A	95	45.840	19.637	-3.580	1.00	17.98	A
	ATOM	187	CB	THR A	95	45.818	19.818	-5.110	1.00	19.25	A
40	ATOM	188	OG1	THR A	95	46.196	21.162	-5.434	1.00	22.04	A
	ATOM	189	CG2	THR A	95	44.421	19.549	-5.661	1.00	17.61	A
	ATOM	190	C	THR A	95	45.455	18.201	-3.243	1.00	18.61	A
	ATOM	191	O	THR A	95	46.212	17.264	-3.524	1.00	17.10	A
	ATOM	192	N	VAL A	96	44.295	18.024	-2.623	1.00	16.53	A
45	ATOM	193	CA	VAL A	96	43.845	16.685	-2.266	1.00	16.05	A
	ATOM	194	CB	VAL A	96	43.170	16.672	-0.886	1.00	16.32	A
	ATOM	195	CG1	VAL A	96	42.741	15.249	-0.532	1.00	18.02	A
	ATOM	196	CG2	VAL A	96	44.145	17.206	0.168	1.00	16.69	A
	ATOM	197	C	VAL A	96	42.875	16.207	-3.335	1.00	16.42	A
50	ATOM	198	O	VAL A	96	41.906	16.892	-3.665	1.00	16.47	A
	ATOM	199	N	VAL A	97	43.157	15.033	-3.888	1.00	16.80	A
	ATOM	200	CA	VAL A	97	42.338	14.471	-4.949	1.00	16.72	A
	ATOM	201	CB	VAL A	97	43.153	14.354	-6.255	1.00	18.43	A
	ATOM	202	CG1	VAL A	97	42.249	13.927	-7.404	1.00	19.69	A
55	ATOM	203	CG2	VAL A	97	43.831	15.685	-6.569	1.00	17.84	A
	ATOM	204	C	VAL A	97	41.812	13.091	-4.583	1.00	16.77	A
	ATOM	205	O	VAL A	97	42.532	12.270	-4.014	1.00	17.13	A
	ATOM	206	N	LEU A	98	40.545	12.845	-4.895	1.00	16.62	A
	ATOM	207	CA	LEU A	98	39.947	11.548	-4.624	1.00	17.04	A

	ATOM	208	CB	LEU A	98	38.424	11.633	-4.743	1.00	16.89	A
	ATOM	209	CG	LEU A	98	37.635	10.342	-4.508	1.00	19.46	A
	ATOM	210	CD1	LEU A	98	37.990	9.762	-3.146	1.00	20.07	A
	ATOM	211	CD2	LEU A	98	36.143	10.627	-4.588	1.00	17.93	A
5	ATOM	212	C	LEU A	98	40.512	10.597	-5.677	1.00	17.38	A
	ATOM	213	O	LEU A	98	40.527	10.920	-6.863	1.00	18.60	A
	ATOM	214	N	ALA A	99	40.995	9.438	-5.246	1.00	17.13	A
	ATOM	215	CA	ALA A	99	41.570	8.466	-6.168	1.00	18.42	A
	ATOM	216	CB	ALA A	99	43.090	8.524	-6.105	1.00	14.76	A
10	ATOM	217	C	ALA A	99	41.102	7.055	-5.848	1.00	21.40	A
	ATOM	218	O	ALA A	99	40.941	6.691	-4.679	1.00	22.52	A
	ATOM	219	N	ARG A	100	40.878	6.261	-6.888	1.00	19.77	A
	ATOM	220	CA	ARG A	100	40.459	4.884	-6.693	1.00	20.85	A
	ATOM	221	CB	ARG A	100	39.202	4.585	-7.518	1.00	24.22	A
15	ATOM	222	CG	ARG A	100	38.608	3.205	-7.256	1.00	31.78	A
	ATOM	223	CD	ARG A	100	37.326	2.979	-8.048	1.00	36.24	A
	ATOM	224	NE	ARG A	100	36.213	3.818	-7.594	1.00	41.40	A
	ATOM	225	CZ	ARG A	100	35.566	3.662	-6.439	1.00	42.05	A
	ATOM	226	NH1	ARG A	100	35.912	2.696	-5.598	1.00	40.67	A
20	ATOM	227	NH2	ARG A	100	34.559	4.468	-6.128	1.00	43.65	A
	ATOM	228	C	ARG A	100	41.613	3.985	-7.129	1.00	18.63	A
	ATOM	229	O	ARG A	100	42.078	4.065	-8.271	1.00	19.49	A
	ATOM	230	N	GLU A	101	42.102	3.157	-6.212	1.00	16.43	A
	ATOM	231	CA	GLU A	101	43.196	2.246	-6.533	1.00	16.11	A
25	ATOM	232	CB	GLU A	101	43.774	1.637	-5.248	1.00	16.79	A
	ATOM	233	CG	GLU A	101	44.917	0.657	-5.488	1.00	16.51	A
	ATOM	234	CD	GLU A	101	45.501	0.115	-4.200	1.00	18.20	A
	ATOM	235	OE1	GLU A	101	44.733	-0.081	-3.239	1.00	18.32	A
	ATOM	236	OE2	GLU A	101	46.725	-0.132	-4.150	1.00	17.14	A
30	ATOM	237	C	GLU A	101	42.625	1.152	-7.442	1.00	17.92	A
	ATOM	238	O	GLU A	101	41.681	0.462	-7.069	1.00	18.02	A
	ATOM	239	N	LEU A	102	43.198	1.002	-8.632	1.00	19.06	A
	ATOM	240	CA	LEU A	102	42.718	0.025	-9.607	1.00	20.71	A
	ATOM	241	CB	LEU A	102	43.569	0.097	-10.878	1.00	23.42	A
35	ATOM	242	CG	LEU A	102	43.531	1.426	-11.642	1.00	25.30	A
	ATOM	243	CD1	LEU A	102	44.577	1.414	-12.748	1.00	27.88	A
	ATOM	244	CD2	LEU A	102	42.140	1.647	-12.214	1.00	26.79	A
	ATOM	245	C	LEU A	102	42.671	-1.418	-9.125	1.00	21.62	A
	ATOM	246	O	LEU A	102	41.668	-2.103	-9.305	1.00	21.09	A
40	ATOM	247	N	ALA A	103	43.753	-1.874	-8.507	1.00	19.38	A
	ATOM	248	CA	ALA A	103	43.836	-3.249	-8.035	1.00	20.87	A
	ATOM	249	CB	ALA A	103	45.284	-3.571	-7.671	1.00	19.23	A
	ATOM	250	C	ALA A	103	42.919	-3.629	-6.872	1.00	19.92	A
	ATOM	251	O	ALA A	103	42.703	-4.815	-6.628	1.00	20.38	A
45	ATOM	252	N	THR A	104	42.361	-2.643	-6.175	1.00	18.12	A
	ATOM	253	CA	THR A	104	41.517	-2.927	-5.018	1.00	17.15	A
	ATOM	254	CB	THR A	104	42.212	-2.484	-3.717	1.00	19.54	A
	ATOM	255	OG1	THR A	104	42.456	-1.070	-3.773	1.00	19.26	A
	ATOM	256	CG2	THR A	104	43.536	-3.219	-3.529	1.00	17.02	A
50	ATOM	257	C	THR A	104	40.159	-2.247	-5.026	1.00	19.44	A
	ATOM	258	O	THR A	104	39.259	-2.648	-4.285	1.00	18.70	A
	ATOM	259	N	SER A	105	40.034	-1.207	-5.847	1.00	19.65	A
	ATOM	260	CA	SER A	105	38.819	-0.400	-5.967	1.00	19.37	A
	ATOM	261	CB	SER A	105	37.598	-1.304	-6.173	1.00	21.81	A
55	ATOM	262	OG	SER A	105	36.431	-0.539	-6.412	1.00	23.01	A
	ATOM	263	C	SER A	105	38.644	0.447	-4.701	1.00	18.99	A
	ATOM	264	O	SER A	105	37.602	1.070	-4.488	1.00	18.66	A
	ATOM	265	N	ARG A	106	39.674	0.468	-3.861	1.00	16.84	A
	ATOM	266	CA	ARG A	106	39.655	1.267	-2.634	1.00	16.21	A

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        ATOM    267   CB    ARG A 106       40.827    0.886   -1.723   1.00  16.41        A
        ATOM    268   CG    ARG A 106       40.619   -0.367   -0.906   1.00  15.49        A
        ATOM    269   CD    ARG A 106       41.887   -0.755   -0.170   1.00  17.43        A
        ATOM    270   NE    ARG A 106       41.620   -1.792    0.824   1.00  20.47        A
  5     ATOM    271   CZ    ARG A 106       42.548   -2.568    1.371   1.00  20.24        A
        ATOM    272   NH1   ARG A 106       43.821   -2.433    1.017   1.00  17.80        A
        ATOM    273   NH2   ARG A 106       42.198   -3.468    2.285   1.00  20.14        A
        ATOM    274   C     ARG A 106       39.785    2.746   -2.981   1.00  17.37        A
        ATOM    275   O     ARG A 106       40.514    3.103   -3.902   1.00  17.75        A
 10     ATOM    276   N     GLU A 107       39.085    3.599   -2.240   1.00  16.06        A
        ATOM    277   CA    GLU A 107       39.156    5.039   -2.461   1.00  20.80        A
        ATOM    278   CB    GLU A 107       37.779    5.694   -2.337   1.00  22.93        A
        ATOM    279   CG    GLU A 107       36.711    5.171   -3.269   1.00  30.87        A
        ATOM    280   CD    GLU A 107       35.431    5.975   -3.148   1.00  32.40        A
 15     ATOM    281   OE1   GLU A 107       35.262    6.939   -3.923   1.00  33.74        A
        ATOM    282   OE2   GLU A 107       34.608    5.654   -2.263   1.00  36.00        A
        ATOM    283   C     GLU A 107       40.053    5.678   -1.410   1.00  18.93        A
        ATOM    284   O     GLU A 107       39.891    5.427   -0.220   1.00  19.21        A
        ATOM    285   N     TYR A 108       40.988    6.507   -1.852   1.00  16.70        A
 20     ATOM    286   CA    TYR A 108       41.883    7.209   -0.942   1.00  15.86        A
        ATOM    287   CB    TYR A 108       43.325    6.728   -1.104   1.00  15.30        A
        ATOM    288   CG    TYR A 108       43.593    5.328   -0.612   1.00  16.33        A
        ATOM    289   CD1   TYR A 108       43.765    5.066    0.746   1.00  16.36        A
        ATOM    290   CE1   TYR A 108       44.046    3.769    1.201   1.00  18.48        A
 25     ATOM    291   CD2   TYR A 108       43.701    4.268   -1.511   1.00  13.25        A
        ATOM    292   CE2   TYR A 108       43.980    2.981   -1.075   1.00  17.28        A
        ATOM    293   CZ    TYR A 108       44.152    2.736    0.276   1.00  19.17        A
        ATOM    294   OH    TYR A 108       44.440    1.461    0.688   1.00  19.38        A
        ATOM    295   C     TYR A 108       41.850    8.687   -1.292   1.00  16.80        A
 30     ATOM    296   O     TYR A 108       41.560    9.058   -2.431   1.00  15.22        A
        ATOM    297   N     ALA A 109       42.132    9.528   -0.306   1.00  14.61        A
        ATOM    298   CA    ALA A 109       42.207   10.957   -0.539   1.00  14.30        A
        ATOM    299   CB    ALA A 109       41.671   11.726    0.661   1.00  14.78        A
        ATOM    300   C     ALA A 109       43.713   11.136   -0.667   1.00  16.79        A
 35     ATOM    301   O     ALA A 109       44.450   10.983    0.317   1.00  16.52        A
        ATOM    302   N     ILE A 110       44.182   11.410   -1.881   1.00  14.80        A
        ATOM    303   CA    ILE A 110       45.609   11.574   -2.093   1.00  15.80        A
        ATOM    304   CB    ILE A 110       46.065   10.863   -3.396   1.00  16.85        A
        ATOM    305   CG2   ILE A 110       47.550   11.098   -3.632   1.00  16.80        A
 40     ATOM    306   CG1   ILE A 110       45.774    9.358   -3.284   1.00  17.76        A
        ATOM    307   CD1   ILE A 110       46.308    8.513   -4.437   1.00  16.07        A
        ATOM    308   C     ILE A 110       46.004   13.045   -2.129   1.00  17.78        A
        ATOM    309   O     ILE A 110       45.534   13.813   -2.976   1.00  16.24        A
        ATOM    310   N     LYS A 111       46.846   13.435   -1.177   1.00  16.15        A
 45     ATOM    311   CA    LYS A 111       47.326   14.808   -1.100   1.00  17.20        A
        ATOM    312   CB    LYS A 111       47.700   15.176    0.344   1.00  17.41        A
        ATOM    313   CG    LYS A 111       48.350   16.547    0.464   1.00  20.71        A
        ATOM    314   CD    LYS A 111       48.585   16.971    1.910   1.00  24.25        A
        ATOM    315   CE    LYS A 111       47.288   17.381    2.598   1.00  29.46        A
 50     ATOM    316   NZ    LYS A 111       47.516   17.866    4.000   1.00  30.50        A
        ATOM    317   C     LYS A 111       48.551   14.890   -1.994   1.00  16.41        A
        ATOM    318   O     LYS A 111       49.509   14.137   -1.813   1.00  18.20        A
        ATOM    319   N     ILE A 112       48.509   15.798   -2.963   1.00  15.87        A
        ATOM    320   CA    ILE A 112       49.606   15.967   -3.907   1.00  17.28        A
 55     ATOM    321   CB    ILE A 112       49.079   15.911   -5.358   1.00  16.43        A
        ATOM    322   CG2   ILE A 112       50.235   15.998   -6.341   1.00  15.12        A
        ATOM    323   CG1   ILE A 112       48.293   14.609   -5.565   1.00  16.82        A
        ATOM    324   CD1   ILE A 112       47.580   14.511   -6.904   1.00  18.47        A
        ATOM    325   C     ILE A 112       50.307   17.301   -3.663   1.00  19.03        A
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	ATOM	326	O	ILE A 112	49.669	18.350	-3.635	1.00	19.15	A
	ATOM	327	N	LEU A 113	51.622	17.245	-3.472	1.00	20.22	A
	ATOM	328	CA	LEU A 113	52.416	18.442	-3.214	1.00	22.36	A
	ATOM	329	CB	LEU A 113	52.995	18.397	-1.794	1.00	22.13	A
5	ATOM	330	CG	LEU A 113	52.042	18.063	-0.646	1.00	22.46	A
	ATOM	331	CD1	LEU A 113	51.866	16.557	-0.553	1.00	23.81	A
	ATOM	332	CD2	LEU A 113	52.603	18.595	0.660	1.00	23.68	A
	ATOM	333	C	LEU A 113	53.560	18.547	-4.215	1.00	23.37	A
	ATOM	334	O	LEU A 113	54.300	17.586	-4.424	1.00	23.11	A
10	ATOM	335	N	GLU A 114	53.706	19.714	-4.834	1.00	23.88	A
	ATOM	336	CA	GLU A 114	54.771	19.920	-5.806	1.00	26.00	A
	ATOM	337	CB	GLU A 114	54.435	21.111	-6.706	1.00	27.74	A
	ATOM	338	CG	GLU A 114	55.533	21.452	-7.696	1.00	35.07	A
	ATOM	339	CD	GLU A 114	55.220	22.696	-8.497	1.00	39.24	A
15	ATOM	340	OE1	GLU A 114	54.808	23.703	-7.885	1.00	41.45	A
	ATOM	341	OE2	GLU A 114	55.395	22.670	-9.736	1.00	44.05	A
	ATOM	342	C	GLU A 114	56.087	20.163	-5.067	1.00	24.37	A
	ATOM	343	O	GLU A 114	56.186	21.071	-4.238	1.00	24.43	A
	ATOM	344	N	LYS A 115	57.096	19.350	-5.360	1.00	24.10	A
20	ATOM	345	CA	LYS A 115	58.376	19.493	-4.678	1.00	24.93	A
	ATOM	346	CB	LYS A 115	59.339	18.373	-5.103	1.00	23.72	A
	ATOM	347	CG	LYS A 115	59.139	17.080	-4.308	1.00	23.09	A
	ATOM	348	CD	LYS A 115	60.064	15.944	-4.743	1.00	21.92	A
	ATOM	349	CE	LYS A 115	59.691	15.400	-6.117	1.00	22.42	A
25	ATOM	350	NZ	LYS A 115	60.447	14.150	-6.448	1.00	19.71	A
	ATOM	351	C	LYS A 115	59.031	20.858	-4.868	1.00	26.87	A
	ATOM	352	O	LYS A 115	59.492	21.469	-3.903	1.00	26.17	A
	ATOM	353	N	ARG A 116	59.058	21.348	-6.102	1.00	28.73	A
	ATOM	354	CA	ARG A 116	59.678	22.638	-6.380	1.00	29.66	A
30	ATOM	355	CB	ARG A 116	59.533	22.980	-7.868	1.00	31.29	A
	ATOM	356	CG	ARG A 116	60.047	24.361	-8.267	1.00	33.19	A
	ATOM	357	CD	ARG A 116	61.368	24.710	-7.590	1.00	35.13	A
	ATOM	358	NE	ARG A 116	62.329	23.612	-7.618	1.00	36.42	A
	ATOM	359	CZ	ARG A 116	63.510	23.648	-7.009	1.00	36.18	A
35	ATOM	360	NH1	ARG A 116	63.871	24.729	-6.332	1.00	36.12	A
	ATOM	361	NH2	ARG A 116	64.324	22.602	-7.067	1.00	35.77	A
	ATOM	362	C	ARG A 116	59.097	23.761	-5.519	1.00	29.70	A
	ATOM	363	O	ARG A 116	59.843	24.515	-4.889	1.00	29.16	A
	ATOM	364	N	HIS A 117	57.773	23.862	-5.472	1.00	27.22	A
40	ATOM	365	CA	HIS A 117	57.126	24.903	-4.681	1.00	26.33	A
	ATOM	366	CB	HIS A 117	55.606	24.835	-4.848	1.00	28.41	A
	ATOM	367	CG	HIS A 117	54.881	26.005	-4.258	1.00	31.82	A
	ATOM	368	CD2	HIS A 117	55.309	27.249	-3.935	1.00	33.19	A
	ATOM	369	ND1	HIS A 117	53.536	25.974	-3.961	1.00	34.30	A
45	ATOM	370	CE1	HIS A 117	53.165	27.148	-3.480	1.00	34.58	A
	ATOM	371	NE2	HIS A 117	54.222	27.940	-3.455	1.00	35.18	A
	ATOM	372	C	HIS A 117	57.477	24.780	-3.202	1.00	26.22	A
	ATOM	373	O	HIS A 117	57.737	25.776	-2.534	1.00	25.67	A
	ATOM	374	N	ILE A 118	57.469	23.554	-2.689	1.00	24.94	A
50	ATOM	375	CA	ILE A 118	57.792	23.315	-1.285	1.00	23.94	A
	ATOM	376	CB	ILE A 118	57.711	21.812	-0.952	1.00	23.50	A
	ATOM	377	CG2	ILE A 118	58.374	21.533	0.389	1.00	23.76	A
	ATOM	378	CG1	ILE A 118	56.246	21.362	-0.959	1.00	24.42	A
	ATOM	379	CD1	ILE A 118	56.066	19.858	-0.834	1.00	28.06	A
55	ATOM	380	C	ILE A 118	59.195	23.821	-0.958	1.00	23.78	A
	ATOM	381	O	ILE A 118	59.402	24.495	0.048	1.00	23.49	A
	ATOM	382	N	ILE A 119	60.153	23.489	-1.815	1.00	23.46	A
	ATOM	383	CA	ILE A 119	61.534	23.913	-1.619	1.00	25.13	A
	ATOM	384	CB	ILE A 119	62.467	23.250	-2.664	1.00	24.25	A

	ATOM	385	CG2	ILE A 119	63.858	23.890	-2.617	1.00	22.47	A
	ATOM	386	CG1	ILE A 119	62.540	21.738	-2.395	1.00	25.05	A
	ATOM	387	CD1	ILE A 119	63.327	20.945	-3.439	1.00	24.62	A
	ATOM	388	C	ILE A 119	61.667	25.435	-1.705	1.00	25.96	A
5	ATOM	389	O	ILE A 119	62.330	26.051	-0.872	1.00	24.78	A
	ATOM	390	N	LYS A 120	61.028	26.039	-2.704	1.00	27.67	A
	ATOM	391	CA	LYS A 120	61.100	27.489	-2.879	1.00	30.29	A
	ATOM	392	CB	LYS A 120	60.242	27.940	-4.060	1.00	32.34	A
	ATOM	393	CG	LYS A 120	60.674	27.407	-5.409	1.00	39.30	A
10	ATOM	394	CD	LYS A 120	59.765	27.950	-6.512	1.00	45.19	A
	ATOM	395	CE	LYS A 120	58.294	27.636	-6.218	1.00	46.48	A
	ATOM	396	NZ	LYS A 120	57.363	28.155	-7.252	1.00	46.49	A
	ATOM	397	C	LYS A 120	60.647	28.247	-1.638	1.00	30.89	A
	ATOM	398	O	LYS A 120	61.303	29.198	-1.217	1.00	32.48	A
15	ATOM	399	N	GLU A 121	59.527	27.825	-1.055	1.00	29.82	A
	ATOM	400	CA	GLU A 121	58.986	28.488	0.128	1.00	30.33	A
	ATOM	401	CB	GLU A 121	57.455	28.416	0.117	1.00	33.04	A
	ATOM	402	CG	GLU A 121	56.794	29.021	-1.120	1.00	36.45	A
	ATOM	403	CD	GLU A 121	57.221	30.456	-1.373	1.00	39.88	A
20	ATOM	404	OE1	GLU A 121	57.200	31.264	-0.420	1.00	40.53	A
	ATOM	405	OE2	GLU A 121	57.573	30.778	-2.529	1.00	43.24	A
	ATOM	406	C	GLU A 121	59.511	27.930	1.451	1.00	30.37	A
	ATOM	407	O	GLU A 121	58.946	28.204	2.513	1.00	31.24	A
	ATOM	408	N	ASN A 122	60.588	27.151	1.390	1.00	29.03	A
25	ATOM	409	CA	ASN A 122	61.183	26.573	2.594	1.00	28.46	A
	ATOM	410	CB	ASN A 122	61.836	27.673	3.436	1.00	31.28	A
	ATOM	411	CG	ASN A 122	62.945	28.395	2.698	1.00	34.12	A
	ATOM	412	OD1	ASN A 122	62.697	29.143	1.754	1.00	35.57	A
	ATOM	413	ND2	ASN A 122	64.181	28.169	3.127	1.00	35.73	A
30	ATOM	414	C	ASN A 122	60.157	25.835	3.456	1.00	26.89	A
	ATOM	415	O	ASN A 122	60.085	26.055	4.663	1.00	27.23	A
	ATOM	416	N	LYS A 123	59.375	24.955	2.842	1.00	23.99	A
	ATOM	417	CA	LYS A 123	58.358	24.210	3.574	1.00	22.43	A
	ATOM	418	CB	LYS A 123	57.031	24.248	2.810	1.00	21.97	A
35	ATOM	419	CG	LYS A 123	56.475	25.645	2.599	1.00	25.68	A
	ATOM	420	CD	LYS A 123	56.253	26.354	3.927	1.00	27.54	A
	ATOM	421	CE	LYS A 123	55.822	27.796	3.716	1.00	31.30	A
	ATOM	422	NZ	LYS A 123	55.756	28.540	5.004	1.00	33.21	A
	ATOM	423	C	LYS A 123	58.748	22.759	3.821	1.00	22.20	A
40	ATOM	424	O	LYS A 123	57.924	21.960	4.264	1.00	22.50	A
	ATOM	425	N	VAL A 124	59.997	22.412	3.535	1.00	20.59	A
	ATOM	426	CA	VAL A 124	60.439	21.039	3.730	1.00	20.25	A
	ATOM	427	CB	VAL A 124	61.922	20.850	3.328	1.00	19.43	A
	ATOM	428	CG1	VAL A 124	62.346	19.407	3.573	1.00	18.69	A
45	ATOM	429	CG2	VAL A 124	62.104	21.195	1.853	1.00	18.21	A
	ATOM	430	C	VAL A 124	60.236	20.561	5.163	1.00	19.53	A
	ATOM	431	O	VAL A 124	59.841	19.418	5.385	1.00	20.02	A
	ATOM	432	N	PRO A 125	60.513	21.422	6.159	1.00	20.01	A
	ATOM	433	CD	PRO A 125	61.178	22.738	6.118	1.00	18.69	A
50	ATOM	434	CA	PRO A 125	60.318	20.979	7.544	1.00	19.88	A
	ATOM	435	CB	PRO A 125	60.793	22.180	8.363	1.00	19.95	A
	ATOM	436	CG	PRO A 125	61.839	22.805	7.479	1.00	18.85	A
	ATOM	437	C	PRO A 125	58.848	20.642	7.824	1.00	19.76	A
	ATOM	438	O	PRO A 125	58.544	19.700	8.550	1.00	16.99	A
55	ATOM	439	N	TYR A 126	57.947	21.418	7.235	1.00	18.98	A
	ATOM	440	CA	TYR A 126	56.516	21.220	7.435	1.00	21.97	A
	ATOM	441	CB	TYR A 126	55.752	22.448	6.933	1.00	25.17	A
	ATOM	442	CG	TYR A 126	56.040	23.690	7.748	1.00	30.98	A
	ATOM	443	CD1	TYR A 126	55.438	23.886	8.991	1.00	33.95	A

	ATOM	444	CE1	TYR	A	126	55.721	25.015	9.763	1.00	36.60	A
	ATOM	445	CD2	TYR	A	126	56.938	24.657	7.292	1.00	35.43	A
	ATOM	446	CE2	TYR	A	126	57.231	25.792	8.058	1.00	37.20	A
	ATOM	447	CZ	TYR	A	126	56.618	25.962	9.291	1.00	37.40	A
5	ATOM	448	OH	TYR	A	126	56.903	27.073	10.052	1.00	40.85	A
	ATOM	449	C	TYR	A	126	55.990	19.956	6.762	1.00	21.35	A
	ATOM	450	O	TYR	A	126	55.265	19.175	7.383	1.00	20.49	A
	ATOM	451	N	VAL	A	127	56.354	19.746	5.501	1.00	18.16	A
	ATOM	452	CA	VAL	A	127	55.892	18.562	4.790	1.00	17.58	A
10	ATOM	453	CB	VAL	A	127	56.308	18.596	3.308	1.00	17.45	A
	ATOM	454	CG1	VAL	A	127	55.786	17.350	2.600	1.00	17.97	A
	ATOM	455	CG2	VAL	A	127	55.751	19.850	2.641	1.00	14.90	A
	ATOM	456	C	VAL	A	127	56.459	17.306	5.448	1.00	18.39	A
	ATOM	457	O	VAL	A	127	55.769	16.298	5.583	1.00	18.14	A
15	ATOM	458	N	THR	A	128	57.716	17.381	5.869	1.00	17.50	A
	ATOM	459	CA	THR	A	128	58.375	16.260	6.530	1.00	18.54	A
	ATOM	460	CB	THR	A	128	59.861	16.586	6.805	1.00	18.01	A
	ATOM	461	OG1	THR	A	128	60.537	16.804	5.559	1.00	21.14	A
	ATOM	462	CG2	THR	A	128	60.536	15.446	7.545	1.00	17.95	A
20	ATOM	463	C	THR	A	128	57.676	15.941	7.856	1.00	19.49	A
	ATOM	464	O	THR	A	128	57.438	14.776	8.179	1.00	18.76	A
	ATOM	465	N	ARG	A	129	57.345	16.981	8.619	1.00	19.60	A
	ATOM	466	CA	ARG	A	129	56.673	16.804	9.904	1.00	20.12	A
	ATOM	467	CB	ARG	A	129	56.534	18.144	10.621	1.00	21.33	A
25	ATOM	468	CG	ARG	A	129	55.948	18.029	12.023	1.00	28.02	A
	ATOM	469	CD	ARG	A	129	55.721	19.404	12.597	1.00	31.25	A
	ATOM	470	NE	ARG	A	129	56.940	20.205	12.560	1.00	37.78	A
	ATOM	471	CZ	ARG	A	129	56.962	21.524	12.391	1.00	40.10	A
	ATOM	472	NH1	ARG	A	129	55.828	22.197	12.239	1.00	40.03	A
30	ATOM	473	NH2	ARG	A	129	58.119	22.170	12.374	1.00	44.58	A
	ATOM	474	C	ARG	A	129	55.288	16.186	9.729	1.00	20.08	A
	ATOM	475	O	ARG	A	129	54.891	15.305	10.496	1.00	20.40	A
	ATOM	476	N	GLU	A	130	54.553	16.654	8.724	1.00	18.79	A
	ATOM	477	CA	GLU	A	130	53.222	16.125	8.454	1.00	20.10	A
35	ATOM	478	CB	GLU	A	130	52.638	16.749	7.183	1.00	19.92	A
	ATOM	479	CG	GLU	A	130	51.350	16.087	6.708	1.00	27.85	A
	ATOM	480	CD	GLU	A	130	50.581	16.933	5.707	1.00	29.72	A
	ATOM	481	OE1	GLU	A	130	51.216	17.528	4.814	1.00	33.46	A
	ATOM	482	OE2	GLU	A	130	49.339	16.996	5.807	1.00	30.74	A
40	ATOM	483	C	GLU	A	130	53.301	14.615	8.295	1.00	19.81	A
	ATOM	484	O	GLU	A	130	52.553	13.875	8.935	1.00	18.37	A
	ATOM	485	N	ARG	A	131	54.219	14.162	7.447	1.00	20.41	A
	ATOM	486	CA	ARG	A	131	54.397	12.735	7.202	1.00	22.45	A
	ATOM	487	CB	ARG	A	131	55.442	12.511	6.098	1.00	25.16	A
45	ATOM	488	CG	ARG	A	131	55.742	11.043	5.840	1.00	28.75	A
	ATOM	489	CD	ARG	A	131	56.736	10.837	4.708	1.00	33.75	A
	ATOM	490	NE	ARG	A	131	57.020	9.415	4.520	1.00	40.07	A
	ATOM	491	CZ	ARG	A	131	57.756	8.915	3.532	1.00	43.07	A
	ATOM	492	NH1	ARG	A	131	58.293	9.721	2.625	1.00	44.91	A
50	ATOM	493	NH2	ARG	A	131	57.955	7.606	3.449	1.00	44.45	A
	ATOM	494	C	ARG	A	131	54.820	11.982	8.466	1.00	23.24	A
	ATOM	495	O	ARG	A	131	54.241	10.948	8.804	1.00	23.86	A
	ATOM	496	N	ASP	A	132	55.831	12.497	9.160	1.00	21.99	A
	ATOM	497	CA	ASP	A	132	56.318	11.850	10.370	1.00	22.04	A
55	ATOM	498	CB	ASP	A	132	57.570	12.564	10.888	1.00	23.72	A
	ATOM	499	CG	ASP	A	132	58.750	12.442	9.932	1.00	27.77	A
	ATOM	500	OD1	ASP	A	132	58.681	11.620	8.989	1.00	27.34	A
	ATOM	501	OD2	ASP	A	132	59.753	13.163	10.128	1.00	28.70	A
	ATOM	502	C	ASP	A	132	55.258	11.772	11.474	1.00	21.69	A

	ATOM	503	O	ASP A 132	55.077	10.723	12.092	1.00	22.75	A
	ATOM	504	N	VAL A 133	54.551	12.868	11.725	1.00	19.54	A
	ATOM	505	CA	VAL A 133	53.525	12.843	12.759	1.00	18.52	A
	ATOM	506	CB	VAL A 133	52.908	14.244	12.990	1.00	19.26	A
5	ATOM	507	CG1	VAL A 133	51.708	14.135	13.918	1.00	18.79	A
	ATOM	508	CG2	VAL A 133	53.953	15.180	13.604	1.00	18.80	A
	ATOM	509	C	VAL A 133	52.419	11.854	12.398	1.00	19.46	A
	ATOM	510	O	VAL A 133	52.073	10.991	13.200	1.00	19.94	A
	ATOM	511	N	MET A 134	51.878	11.957	11.187	1.00	19.15	A
10	ATOM	512	CA	MET A 134	50.807	11.052	10.792	1.00	21.25	A
	ATOM	513	CB	MET A 134	50.309	11.381	9.383	1.00	17.34	A
	ATOM	514	CG	MET A 134	49.615	12.730	9.302	1.00	20.00	A
	ATOM	515	SD	MET A 134	48.643	12.952	7.798	1.00	24.21	A
	ATOM	516	CE	MET A 134	47.033	12.434	8.400	1.00	23.20	A
15	ATOM	517	C	MET A 134	51.203	9.582	10.881	1.00	22.43	A
	ATOM	518	O	MET A 134	50.384	8.741	11.249	1.00	23.82	A
	ATOM	519	N	SER A 135	52.454	9.273	10.556	1.00	23.09	A
	ATOM	520	CA	SER A 135	52.939	7.895	10.615	1.00	26.13	A
	ATOM	521	CB	SER A 135	54.356	7.798	10.039	1.00	26.17	A
20	ATOM	522	OG	SER A 135	54.383	8.177	8.673	1.00	31.91	A
	ATOM	523	C	SER A 135	52.957	7.358	12.045	1.00	26.58	A
	ATOM	524	O	SER A 135	52.926	6.148	12.261	1.00	26.42	A
	ATOM	525	N	ARG A 136	53.014	8.261	13.018	1.00	25.65	A
	ATOM	526	CA	ARG A 136	53.056	7.870	14.425	1.00	27.47	A
25	ATOM	527	CB	ARG A 136	53.823	8.914	15.238	1.00	27.97	A
	ATOM	528	CG	ARG A 136	55.283	9.082	14.857	1.00	32.00	A
	ATOM	529	CD	ARG A 136	55.904	10.218	15.664	1.00	33.03	A
	ATOM	530	NE	ARG A 136	55.602	10.073	17.084	1.00	36.11	A
	ATOM	531	CZ	ARG A 136	55.867	10.990	18.007	1.00	39.74	A
30	ATOM	532	NH1	ARG A 136	56.449	12.132	17.661	1.00	40.55	A
	ATOM	533	NH2	ARG A 136	55.540	10.769	19.276	1.00	36.72	A
	ATOM	534	C	ARG A 136	51.667	7.709	15.036	1.00	26.38	A
	ATOM	535	O	ARG A 136	51.516	7.121	16.106	1.00	27.06	A
	ATOM	536	N	LEU A 137	50.655	8.235	14.360	1.00	24.77	A
35	ATOM	537	CA	LEU A 137	49.294	8.162	14.870	1.00	24.70	A
	ATOM	538	CB	LEU A 137	48.483	9.363	14.371	1.00	24.52	A
	ATOM	539	CG	LEU A 137	49.050	10.760	14.662	1.00	26.67	A
	ATOM	540	CD1	LEU A 137	48.075	11.813	14.141	1.00	27.25	A
	ATOM	541	CD2	LEU A 137	49.279	10.945	16.155	1.00	27.09	A
40	ATOM	542	C	LEU A 137	48.592	6.868	14.473	1.00	25.20	A
	ATOM	543	O	LEU A 137	48.619	6.469	13.309	1.00	25.99	A
	ATOM	544	N	ASP A 138	47.971	6.218	15.451	1.00	21.89	A
	ATOM	545	CA	ASP A 138	47.239	4.977	15.219	1.00	21.35	A
	ATOM	546	CB	ASP A 138	48.124	3.761	15.523	1.00	22.14	A
45	ATOM	547	CG	ASP A 138	47.432	2.448	15.201	1.00	24.90	A
	ATOM	548	OD1	ASP A 138	46.631	2.423	14.241	1.00	24.78	A
	ATOM	549	OD2	ASP A 138	47.691	1.443	15.897	1.00	25.39	A
	ATOM	550	C	ASP A 138	46.031	4.991	16.138	1.00	20.47	A
	ATOM	551	O	ASP A 138	45.967	4.248	17.118	1.00	19.06	A
50	ATOM	552	N	HIS A 139	45.075	5.852	15.810	1.00	18.27	A
	ATOM	553	CA	HIS A 139	43.869	6.016	16.606	1.00	18.21	A
	ATOM	554	CB	HIS A 139	44.096	7.157	17.612	1.00	15.84	A
	ATOM	555	CG	HIS A 139	42.985	7.332	18.600	1.00	15.24	A
	ATOM	556	CD2	HIS A 139	42.884	6.964	19.900	1.00	13.97	A
55	ATOM	557	ND1	HIS A 139	41.791	7.943	18.280	1.00	14.74	A
	ATOM	558	CE1	HIS A 139	41.002	7.944	19.341	1.00	14.19	A
	ATOM	559	NE2	HIS A 139	41.641	7.356	20.336	1.00	14.15	A
	ATOM	560	C	HIS A 139	42.715	6.330	15.654	1.00	18.50	A
	ATOM	561	O	HIS A 139	42.879	7.080	14.693	1.00	20.80	A

	ATOM	562	N	PRO	A	140	41.527	5.767	15.913	1.00	18.32	A
	ATOM	563	CD	PRO	A	140	41.143	4.984	17.100	1.00	16.71	A
	ATOM	564	CA	PRO	A	140	40.367	6.001	15.048	1.00	17.43	A
	ATOM	565	CB	PRO	A	140	39.273	5.157	15.704	1.00	16.64	A
5	ATOM	566	CG	PRO	A	140	39.643	5.204	17.152	1.00	18.43	A
	ATOM	567	C	PRO	A	140	39.914	7.441	14.803	1.00	18.77	A
	ATOM	568	O	PRO	A	140	39.207	7.695	13.831	1.00	19.88	A
	ATOM	569	N	PHE	A	141	40.301	8.381	15.664	1.00	17.14	A
	ATOM	570	CA	PHE	A	141	39.874	9.767	15.477	1.00	16.42	A
10	ATOM	571	CB	PHE	A	141	39.568	10.422	16.836	1.00	14.60	A
	ATOM	572	CG	PHE	A	141	38.386	9.817	17.556	1.00	15.26	A
	ATOM	573	CD1	PHE	A	141	37.335	9.234	16.842	1.00	14.78	A
	ATOM	574	CD2	PHE	A	141	38.297	9.880	18.942	1.00	13.70	A
	ATOM	575	CE1	PHE	A	141	36.215	8.727	17.502	1.00	16.94	A
15	ATOM	576	CE2	PHE	A	141	37.178	9.375	19.615	1.00	15.75	A
	ATOM	577	CZ	PHE	A	141	36.135	8.799	18.893	1.00	16.89	A
	ATOM	578	C	PHE	A	141	40.857	10.641	14.694	1.00	16.15	A
	ATOM	579	O	PHE	A	141	40.799	11.871	14.761	1.00	17.35	A
	ATOM	580	N	PHE	A	142	41.748	10.011	13.941	1.00	15.88	A
20	ATOM	581	CA	PHE	A	142	42.727	10.756	13.154	1.00	17.89	A
	ATOM	582	CB	PHE	A	142	44.115	10.645	13.793	1.00	17.57	A
	ATOM	583	CG	PHE	A	142	44.240	11.371	15.103	1.00	18.74	A
	ATOM	584	CD1	PHE	A	142	44.559	12.726	15.135	1.00	17.77	A
	ATOM	585	CD2	PHE	A	142	43.997	10.711	16.304	1.00	18.74	A
25	ATOM	586	CE1	PHE	A	142	44.632	13.417	16.347	1.00	15.77	A
	ATOM	587	CE2	PHE	A	142	44.065	11.393	17.522	1.00	17.56	A
	ATOM	588	CZ	PHE	A	142	44.383	12.747	17.542	1.00	17.14	A
	ATOM	589	C	PHE	A	142	42.793	10.231	11.729	1.00	19.12	A
	ATOM	590	O	PHE	A	142	42.659	9.030	11.504	1.00	20.01	A
30	ATOM	591	N	VAL	A	143	42.978	11.135	10.769	1.00	18.72	A
	ATOM	592	CA	VAL	A	143	43.102	10.735	9.371	1.00	18.52	A
	ATOM	593	CB	VAL	A	143	43.294	11.961	8.440	1.00	20.66	A
	ATOM	594	CG1	VAL	A	143	43.843	11.521	7.080	1.00	21.29	A
	ATOM	595	CG2	VAL	A	143	41.958	12.673	8.252	1.00	22.97	A
35	ATOM	596	C	VAL	A	143	44.342	9.865	9.330	1.00	18.68	A
	ATOM	597	O	VAL	A	143	45.355	10.199	9.943	1.00	18.42	A
	ATOM	598	N	LYS	A	144	44.259	8.745	8.623	1.00	18.30	A
	ATOM	599	CA	LYS	A	144	45.384	7.824	8.535	1.00	18.78	A
	ATOM	600	CB	LYS	A	144	44.889	6.373	8.608	1.00	22.27	A
40	ATOM	601	CG	LYS	A	144	46.017	5.340	8.557	1.00	29.72	A
	ATOM	602	CD	LYS	A	144	45.491	3.912	8.674	1.00	34.16	A
	ATOM	603	CE	LYS	A	144	46.631	2.896	8.577	1.00	37.67	A
	ATOM	604	NZ	LYS	A	144	46.138	1.484	8.629	1.00	39.02	A
	ATOM	605	C	LYS	A	144	46.192	8.002	7.261	1.00	18.53	A
45	ATOM	606	O	LYS	A	144	45.643	8.314	6.200	1.00	18.18	A
	ATOM	607	N	LEU	A	145	47.502	7.816	7.385	1.00	16.79	A
	ATOM	608	CA	LEU	A	145	48.411	7.900	6.251	1.00	17.45	A
	ATOM	609	CB	LEU	A	145	49.686	8.653	6.641	1.00	18.82	A
	ATOM	610	CG	LEU	A	145	50.734	8.902	5.549	1.00	20.23	A
50	ATOM	611	CD1	LEU	A	145	51.836	9.799	6.093	1.00	18.83	A
	ATOM	612	CD2	LEU	A	145	51.317	7.581	5.069	1.00	19.79	A
	ATOM	613	C	LEU	A	145	48.739	6.450	5.907	1.00	19.19	A
	ATOM	614	O	LEU	A	145	49.451	5.772	6.659	1.00	17.36	A
	ATOM	615	N	TYR	A	146	48.215	5.972	4.782	1.00	17.28	A
55	ATOM	616	CA	TYR	A	146	48.444	4.593	4.358	1.00	17.57	A
	ATOM	617	CB	TYR	A	146	47.288	4.098	3.486	1.00	17.74	A
	ATOM	618	CG	TYR	A	146	45.981	3.926	4.214	1.00	17.50	A
	ATOM	619	CD1	TYR	A	146	45.099	4.995	4.377	1.00	16.50	A
	ATOM	620	CE1	TYR	A	146	43.881	4.827	5.039	1.00	17.10	A

	ATOM	621	CD2	TYR	A	146	45.620	2.686	4.735	1.00 18.28	A
	ATOM	622	CE2	TYR	A	146	44.411	2.506	5.399	1.00 19.84	A
	ATOM	623	CZ	TYR	A	146	43.547	3.576	5.544	1.00 17.53	A
	ATOM	624	OH	TYR	A	146	42.342	3.376	6.169	1.00 20.67	A
5	ATOM	625	C	TYR	A	146	49.735	4.376	3.582	1.00 18.72	A
	ATOM	626	O	TYR	A	146	50.382	3.338	3.715	1.00 19.51	A
	ATOM	627	N	PHE	A	147	50.110	5.350	2.765	1.00 18.09	A
	ATOM	628	CA	PHE	A	147	51.307	5.203	1.952	1.00 17.20	A
	ATOM	629	CB	PHE	A	147	51.007	4.258	0.783	1.00 16.77	A
10	ATOM	630	CG	PHE	A	147	49.835	4.699	-0.070	1.00 17.75	A
	ATOM	631	CD1	PHE	A	147	49.967	5.752	-0.975	1.00 16.58	A
	ATOM	632	CD2	PHE	A	147	48.595	4.075	0.053	1.00 18.07	A
	ATOM	633	CE1	PHE	A	147	48.886	6.178	-1.742	1.00 19.62	A
	ATOM	634	CE2	PHE	A	147	47.503	4.492	-0.710	1.00 18.56	A
15	ATOM	635	CZ	PHE	A	147	47.647	5.546	-1.610	1.00 19.27	A
	ATOM	636	C	PHE	A	147	51.768	6.533	1.395	1.00 17.13	A
	ATOM	637	O	PHE	A	147	51.045	7.528	1.452	1.00 14.43	A
	ATOM	638	N	THR	A	148	52.981	6.534	0.854	1.00 17.12	A
	ATOM	639	CA	THR	A	148	53.541	7.718	0.232	1.00 17.96	A
20	ATOM	640	CB	THR	A	148	54.449	8.531	1.197	1.00 21.51	A
	ATOM	641	OG1	THR	A	148	55.605	7.760	1.537	1.00 18.83	A
	ATOM	642	CG2	THR	A	148	53.700	8.897	2.472	1.00 19.60	A
	ATOM	643	C	THR	A	148	54.386	7.262	-0.946	1.00 20.31	A
	ATOM	644	O	THR	A	148	54.860	6.124	-0.991	1.00 18.94	A
25	ATOM	645	N	PHE	A	149	54.543	8.149	-1.916	1.00 19.16	A
	ATOM	646	CA	PHE	A	149	55.368	7.877	-3.073	1.00 18.01	A
	ATOM	647	CB	PHE	A	149	54.748	6.801	-3.989	1.00 17.23	A
	ATOM	648	CG	PHE	A	149	53.389	7.144	-4.544	1.00 16.88	A
	ATOM	649	CD1	PHE	A	149	53.262	7.888	-5.712	1.00 18.58	A
30	ATOM	650	CD2	PHE	A	149	52.235	6.668	-3.927	1.00 17.31	A
	ATOM	651	CE1	PHE	A	149	52.007	8.149	-6.267	1.00 19.26	A
	ATOM	652	CE2	PHE	A	149	50.972	6.923	-4.470	1.00 19.17	A
	ATOM	653	CZ	PHE	A	149	50.858	7.663	-5.642	1.00 19.60	A
	ATOM	654	C	PHE	A	149	55.542	9.205	-3.774	1.00 20.85	A
35	ATOM	655	O	PHE	A	149	54.934	10.200	-3.376	1.00 19.76	A
	ATOM	656	N	GLN	A	150	56.398	9.241	-4.782	1.00 19.79	A
	ATOM	657	CA	GLN	A	150	56.636	10.481	-5.497	1.00 24.03	A
	ATOM	658	CB	GLN	A	150	57.659	11.347	-4.739	1.00 24.45	A
	ATOM	659	CG	GLN	A	150	58.986	10.645	-4.414	1.00 26.28	A
40	ATOM	660	CD	GLN	A	150	59.988	11.558	-3.692	1.00 29.02	A
	ATOM	661	OE1	GLN	A	150	60.693	12.353	-4.321	1.00 27.05	A
	ATOM	662	NE2	GLN	A	150	60.042	11.449	-2.365	1.00 26.47	A
	ATOM	663	C	GLN	A	150	57.160	10.203	-6.885	1.00 23.88	A
	ATOM	664	O	GLN	A	150	57.673	9.118	-7.158	1.00 24.79	A
45	ATOM	665	N	ASP	A	151	56.987	11.171	-7.774	1.00 25.88	A
	ATOM	666	CA	ASP	A	151	57.527	11.047	-9.117	1.00 26.49	A
	ATOM	667	CB	ASP	A	151	56.437	11.126	-10.199	1.00 24.54	A
	ATOM	668	CG	ASP	A	151	55.544	12.336	-10.064	1.00 24.95	A
	ATOM	669	OD1	ASP	A	151	56.005	13.379	-9.561	1.00 22.44	A
50	ATOM	670	OD2	ASP	A	151	54.369	12.242	-10.490	1.00 25.72	A
	ATOM	671	C	ASP	A	151	58.515	12.203	-9.220	1.00 28.63	A
	ATOM	672	O	ASP	A	151	58.890	12.780	-8.194	1.00 27.83	A
	ATOM	673	N	ASP	A	152	58.934	12.560	-10.426	1.00 29.21	A
	ATOM	674	CA	ASP	A	152	59.907	13.636	-10.562	1.00 31.88	A
55	ATOM	675	CB	ASP	A	152	60.325	13.792	-12.026	1.00 33.94	A
	ATOM	676	CG	ASP	A	152	61.033	12.564	-12.557	1.00 38.88	A
	ATOM	677	OD1	ASP	A	152	61.817	11.959	-11.791	1.00 39.67	A
	ATOM	678	OD2	ASP	A	152	60.817	12.211	-13.738	1.00 41.57	A
	ATOM	679	C	ASP	A	152	59.487	14.994	-10.013	1.00 30.90	A

	ATOM	680	O	ASP	A	152	60.316	15.735	-9.482	1.00	31.69	A
	ATOM	681	N	GLU	A	153	58.207	15.322	-10.107	1.00	29.44	A
	ATOM	682	CA	GLU	A	153	57.767	16.632	-9.646	1.00	28.69	A
	ATOM	683	CB	GLU	A	153	56.984	17.327	-10.766	1.00	32.90	A
5	ATOM	684	CG	GLU	A	153	57.451	16.987	-12.183	1.00	40.57	A
	ATOM	685	CD	GLU	A	153	56.920	15.643	-12.675	1.00	45.78	A
	ATOM	686	OE1	GLU	A	153	55.682	15.482	-12.760	1.00	48.91	A
	ATOM	687	OE2	GLU	A	153	57.736	14.747	-12.979	1.00	48.95	A
	ATOM	688	C	GLU	A	153	56.929	16.683	-8.372	1.00	26.43	A
10	ATOM	689	O	GLU	A	153	56.947	17.688	-7.660	1.00	25.08	A
	ATOM	690	N	LYS	A	154	56.205	15.610	-8.069	1.00	22.39	A
	ATOM	691	CA	LYS	A	154	55.318	15.631	-6.912	1.00	21.43	A
	ATOM	692	CB	LYS	A	154	53.861	15.628	-7.398	1.00	20.33	A
	ATOM	693	CG	LYS	A	154	53.505	16.716	-8.403	1.00	21.92	A
15	ATOM	694	CD	LYS	A	154	52.211	16.375	-9.146	1.00	19.70	A
	ATOM	695	CE	LYS	A	154	51.775	17.503	-10.077	1.00	20.04	A
	ATOM	696	NZ	LYS	A	154	50.631	17.094	-10.951	1.00	19.97	A
	ATOM	697	C	LYS	A	154	55.458	14.522	-5.881	1.00	20.43	A
	ATOM	698	O	LYS	A	154	55.949	13.426	-6.173	1.00	21.13	A
20	ATOM	699	N	LEU	A	155	54.985	14.832	-4.676	1.00	19.69	A
	ATOM	700	CA	LEU	A	155	54.950	13.900	-3.553	1.00	19.10	A
	ATOM	701	CB	LEU	A	155	55.362	14.588	-2.252	1.00	19.65	A
	ATOM	702	CG	LEU	A	155	56.740	15.234	-2.129	1.00	21.20	A
	ATOM	703	CD1	LEU	A	155	56.848	15.918	-0.770	1.00	23.42	A
25	ATOM	704	CD2	LEU	A	155	57.816	14.174	-2.277	1.00	23.08	A
	ATOM	705	C	LEU	A	155	53.478	13.507	-3.427	1.00	18.87	A
	ATOM	706	O	LEU	A	155	52.600	14.348	-3.620	1.00	18.61	A
	ATOM	707	N	TYR	A	156	53.209	12.249	-3.091	1.00	15.02	A
	ATOM	708	CA	TYR	A	156	51.834	11.783	-2.934	1.00	16.29	A
30	ATOM	709	CB	TYR	A	156	51.470	10.769	-4.029	1.00	14.20	A
	ATOM	710	CG	TYR	A	156	51.603	11.273	-5.449	1.00	17.29	A
	ATOM	711	CD1	TYR	A	156	52.857	11.429	-6.045	1.00	16.46	A
	ATOM	712	CE1	TYR	A	156	52.978	11.884	-7.360	1.00	18.68	A
	ATOM	713	CD2	TYR	A	156	50.474	11.588	-6.202	1.00	16.43	A
35	ATOM	714	CE2	TYR	A	156	50.583	12.048	-7.512	1.00	16.31	A
	ATOM	715	CZ	TYR	A	156	51.835	12.192	-8.083	1.00	18.17	A
	ATOM	716	OH	TYR	A	156	51.941	12.651	-9.371	1.00	17.47	A
	ATOM	717	C	TYR	A	156	51.657	11.108	-1.572	1.00	16.32	A
	ATOM	718	O	TYR	A	156	52.412	10.197	-1.235	1.00	16.27	A
40	ATOM	719	N	PHE	A	157	50.678	11.568	-0.792	1.00	15.47	A
	ATOM	720	CA	PHE	A	157	50.385	10.966	0.508	1.00	16.66	A
	ATOM	721	CB	PHE	A	157	50.324	12.014	1.629	1.00	16.91	A
	ATOM	722	CG	PHE	A	157	51.631	12.708	1.907	1.00	18.96	A
	ATOM	723	CD1	PHE	A	157	52.821	12.261	1.340	1.00	20.31	A
45	ATOM	724	CD2	PHE	A	157	51.664	13.829	2.732	1.00	21.12	A
	ATOM	725	CE1	PHE	A	157	54.025	12.926	1.585	1.00	22.08	A
	ATOM	726	CE2	PHE	A	157	52.865	14.500	2.982	1.00	22.18	A
	ATOM	727	CZ	PHE	A	157	54.045	14.045	2.405	1.00	21.27	A
	ATOM	728	C	PHE	A	157	49.016	10.308	0.404	1.00	16.52	A
50	ATOM	729	O	PHE	A	157	48.029	10.979	0.110	1.00	17.32	A
	ATOM	730	N	GLY	A	158	48.953	9.002	0.644	1.00	15.97	A
	ATOM	731	CA	GLY	A	158	47.684	8.299	0.572	1.00	16.13	A
	ATOM	732	C	GLY	A	158	47.000	8.383	1.920	1.00	14.94	A
	ATOM	733	O	GLY	A	158	47.445	7.756	2.879	1.00	16.28	A
55	ATOM	734	N	LEU	A	159	45.915	9.145	1.989	1.00	13.50	A
	ATOM	735	CA	LEU	A	159	45.191	9.340	3.241	1.00	15.20	A
	ATOM	736	CB	LEU	A	159	45.031	10.835	3.517	1.00	14.20	A
	ATOM	737	CG	LEU	A	159	46.270	11.726	3.385	1.00	19.00	A
	ATOM	738	CD1	LEU	A	159	45.847	13.188	3.477	1.00	17.12	A

	ATOM	739	CD2	LEU A 159	47.275	11.390	4.471	1.00 14.71	A
	ATOM	740	C	LEU A 159	43.809	8.716	3.232	1.00 15.53	A
	ATOM	741	O	LEU A 159	43.232	8.472	2.177	1.00 16.05	A
	ATOM	742	N	SER A 160	43.268	8.469	4.418	1.00 15.86	A
5	ATOM	743	CA	SER A 160	41.932	7.917	4.498	1.00 19.01	A
	ATOM	744	CB	SER A 160	41.566	7.582	5.949	1.00 22.90	A
	ATOM	745	OG	SER A 160	41.901	8.629	6.833	1.00 24.18	A
	ATOM	746	C	SER A 160	40.987	8.968	3.924	1.00 20.43	A
	ATOM	747	O	SER A 160	41.213	10.173	4.062	1.00 19.96	A
10	ATOM	748	N	TYR A 161	39.945	8.508	3.250	1.00 19.20	A
	ATOM	749	CA	TYR A 161	38.975	9.406	2.644	1.00 20.37	A
	ATOM	750	CB	TYR A 161	38.471	8.785	1.332	1.00 20.00	A
	ATOM	751	CG	TYR A 161	37.314	9.502	0.666	1.00 20.72	A
	ATOM	752	CD1	TYR A 161	37.222	10.895	0.682	1.00 18.22	A
15	ATOM	753	CE1	TYR A 161	36.180	11.557	0.029	1.00 22.24	A
	ATOM	754	CD2	TYR A 161	36.333	8.784	-0.020	1.00 20.53	A
	ATOM	755	CE2	TYR A 161	35.287	9.436	-0.678	1.00 24.24	A
	ATOM	756	CZ	TYR A 161	35.218	10.822	-0.648	1.00 22.32	A
	ATOM	757	OH	TYR A 161	34.194	11.471	-1.298	1.00 23.03	A
20	ATOM	758	C	TYR A 161	37.812	9.681	3.598	1.00 20.14	A
	ATOM	759	O	TYR A 161	36.959	8.819	3.810	1.00 19.53	A
	ATOM	760	N	ALA A 162	37.791	10.880	4.178	1.00 19.92	A
	ATOM	761	CA	ALA A 162	36.721	11.271	5.099	1.00 21.07	A
	ATOM	762	CB	ALA A 162	37.187	12.419	6.002	1.00 19.60	A
25	ATOM	763	C	ALA A 162	35.542	11.712	4.238	1.00 22.07	A
	ATOM	764	O	ALA A 162	35.436	12.875	3.860	1.00 20.66	A
	ATOM	765	N	LYS A 163	34.653	10.769	3.945	1.00 23.27	A
	ATOM	766	CA	LYS A 163	33.503	11.017	3.080	1.00 27.12	A
	ATOM	767	CB	LYS A 163	32.663	9.741	2.963	1.00 29.68	A
30	ATOM	768	CG	LYS A 163	33.455	8.524	2.515	1.00 37.67	A
	ATOM	769	CD	LYS A 163	32.556	7.310	2.321	1.00 42.24	A
	ATOM	770	CE	LYS A 163	33.373	6.034	2.185	1.00 44.48	A
	ATOM	771	NZ	LYS A 163	34.143	5.735	3.430	1.00 44.88	A
	ATOM	772	C	LYS A 163	32.581	12.186	3.411	1.00 25.78	A
35	ATOM	773	O	LYS A 163	32.103	12.863	2.506	1.00 26.53	A
	ATOM	774	N	ASN A 164	32.327	12.441	4.689	1.00 24.57	A
	ATOM	775	CA	ASN A 164	31.420	13.522	5.033	1.00 23.77	A
	ATOM	776	CB	ASN A 164	30.610	13.129	6.265	1.00 25.02	A
	ATOM	777	CG	ASN A 164	29.537	12.101	5.932	1.00 27.54	A
40	ATOM	778	OD1	ASN A 164	28.772	12.281	4.983	1.00 28.79	A
	ATOM	779	ND2	ASN A 164	29.475	11.024	6.704	1.00 27.13	A
	ATOM	780	C	ASN A 164	31.999	14.931	5.169	1.00 24.43	A
	ATOM	781	O	ASN A 164	31.306	15.856	5.589	1.00 23.98	A
	ATOM	782	N	GLY A 165	33.262	15.097	4.795	1.00 21.56	A
45	ATOM	783	CA	GLY A 165	33.873	16.414	4.836	1.00 24.39	A
	ATOM	784	C	GLY A 165	34.191	17.043	6.181	1.00 23.62	A
	ATOM	785	O	GLY A 165	34.380	16.352	7.177	1.00 23.26	A
	ATOM	786	N	GLU A 166	34.234	18.373	6.186	1.00 23.22	A
	ATOM	787	CA	GLU A 166	34.563	19.176	7.362	1.00 24.54	A
50	ATOM	788	CB	GLU A 166	35.055	20.558	6.913	1.00 25.04	A
	ATOM	789	CG	GLU A 166	36.419	20.569	6.229	1.00 26.48	A
	ATOM	790	CD	GLU A 166	36.699	21.889	5.517	1.00 30.02	A
	ATOM	791	OE1	GLU A 166	36.081	22.906	5.889	1.00 29.33	A
	ATOM	792	OE2	GLU A 166	37.544	21.916	4.596	1.00 30.48	A
55	ATOM	793	C	GLU A 166	33.436	19.372	8.369	1.00 24.44	A
	ATOM	794	O	GLU A 166	32.279	19.541	8.001	1.00 22.76	A
	ATOM	795	N	LEU A 167	33.791	19.370	9.649	1.00 22.95	A
	ATOM	796	CA	LEU A 167	32.813	19.581	10.707	1.00 22.26	A
	ATOM	797	CB	LEU A 167	33.497	19.481	12.073	1.00 22.32	A

	ATOM	798	CG	LEU A 167	32.706	19.923	13.306	1.00	22.04	A
	ATOM	799	CD1	LEU A 167	31.454	19.074	13.463	1.00	19.66	A
	ATOM	800	CD2	LEU A 167	33.597	19.805	14.537	1.00	21.17	A
	ATOM	801	C	LEU A 167	32.193	20.971	10.529	1.00	23.49	A
5	ATOM	802	O	LEU A 167	31.047	21.209	10.907	1.00	23.56	A
	ATOM	803	N	LEU A 168	32.960	21.887	9.948	1.00	24.25	A
	ATOM	804	CA	LEU A 168	32.473	23.245	9.722	1.00	26.64	A
	ATOM	805	CB	LEU A 168	33.560	24.099	9.066	1.00	25.62	A
	ATOM	806	CG	LEU A 168	33.198	25.546	8.707	1.00	27.34	A
10	ATOM	807	CD1	LEU A 168	32.718	26.296	9.946	1.00	26.42	A
	ATOM	808	CD2	LEU A 168	34.418	26.238	8.119	1.00	26.74	A
	ATOM	809	C	LEU A 168	31.234	23.218	8.829	1.00	27.13	A
	ATOM	810	O	LEU A 168	30.297	23.989	9.030	1.00	26.01	A
	ATOM	811	N	LYS A 169	31.233	22.320	7.848	1.00	26.41	A
15	ATOM	812	CA	LYS A 169	30.106	22.210	6.934	1.00	27.70	A
	ATOM	813	CB	LYS A 169	30.324	21.064	5.945	1.00	30.49	A
	ATOM	814	CG	LYS A 169	29.151	20.854	4.993	1.00	32.47	A
	ATOM	815	CD	LYS A 169	29.407	19.728	3.998	1.00	35.98	A
	ATOM	816	CE	LYS A 169	29.462	18.372	4.683	1.00	38.53	A
20	ATOM	817	NZ	LYS A 169	29.622	17.263	3.702	1.00	41.00	A
	ATOM	818	C	LYS A 169	28.801	21.985	7.682	1.00	28.12	A
	ATOM	819	O	LYS A 169	27.785	22.608	7.371	1.00	28.08	A
	ATOM	820	N	TYR A 170	28.826	21.094	8.668	1.00	26.53	A
	ATOM	821	CA	TYR A 170	27.624	20.791	9.434	1.00	26.95	A
25	ATOM	822	CB	TYR A 170	27.810	19.476	10.193	1.00	25.03	A
	ATOM	823	CG	TYR A 170	27.898	18.300	9.251	1.00	26.65	A
	ATOM	824	CD1	TYR A 170	26.745	17.661	8.790	1.00	28.27	A
	ATOM	825	CE1	TYR A 170	26.814	16.642	7.839	1.00	26.85	A
	ATOM	826	CD2	TYR A 170	29.127	17.884	8.742	1.00	27.83	A
30	ATOM	827	CE2	TYR A 170	29.209	16.869	7.792	1.00	27.19	A
	ATOM	828	CZ	TYR A 170	28.049	16.254	7.343	1.00	30.02	A
	ATOM	829	OH	TYR A 170	28.130	15.268	6.382	1.00	29.23	A
	ATOM	830	C	TYR A 170	27.229	21.918	10.376	1.00	27.59	A
	ATOM	831	O	TYR A 170	26.045	22.122	10.642	1.00	29.25	A
35	ATOM	832	N	ILE A 171	28.208	22.660	10.882	1.00	28.16	A
	ATOM	833	CA	ILE A 171	27.883	23.770	11.763	1.00	29.03	A
	ATOM	834	CB	ILE A 171	29.151	24.435	12.337	1.00	27.51	A
	ATOM	835	CG2	ILE A 171	28.773	25.705	13.084	1.00	27.97	A
	ATOM	836	CG1	ILE A 171	29.872	23.458	13.272	1.00	26.70	A
40	ATOM	837	CD1	ILE A 171	31.163	23.996	13.856	1.00	24.07	A
	ATOM	838	C	ILE A 171	27.094	24.796	10.944	1.00	31.41	A
	ATOM	839	O	ILE A 171	26.088	25.335	11.407	1.00	31.69	A
	ATOM	840	N	ARG A 172	27.546	25.047	9.719	1.00	33.21	A
	ATOM	841	CA	ARG A 172	26.874	26.000	8.844	1.00	36.54	A
45	ATOM	842	CB	ARG A 172	27.734	26.314	7.616	1.00	37.73	A
	ATOM	843	CG	ARG A 172	29.057	27.011	7.912	1.00	41.65	A
	ATOM	844	CD	ARG A 172	29.708	27.492	6.616	1.00	45.29	A
	ATOM	845	NE	ARG A 172	31.037	28.070	6.812	1.00	48.51	A
	ATOM	846	CZ	ARG A 172	31.314	29.059	7.658	1.00	51.53	A
50	ATOM	847	NH1	ARG A 172	30.355	29.593	8.406	1.00	53.75	A
	ATOM	848	NH2	ARG A 172	32.553	29.526	7.748	1.00	51.21	A
	ATOM	849	C	ARG A 172	25.528	25.459	8.378	1.00	37.67	A
	ATOM	850	O	ARG A 172	24.550	26.200	8.288	1.00	39.09	A
	ATOM	851	N	LYS A 173	25.481	24.163	8.092	1.00	38.44	A
55	ATOM	852	CA	LYS A 173	24.259	23.528	7.619	1.00	39.25	A
	ATOM	853	CB	LYS A 173	24.523	22.061	7.272	1.00	41.89	A
	ATOM	854	CG	LYS A 173	23.279	21.298	6.830	1.00	45.52	A
	ATOM	855	CD	LYS A 173	23.557	19.808	6.653	1.00	49.60	A
	ATOM	856	CE	LYS A 173	24.477	19.530	5.469	1.00	52.63	A

	ATOM	857	NZ	LYS	A	173	23.855	19.894	4.160	1.00 54.61	A
	ATOM	858	C	LYS	A	173	23.089	23.608	8.595	1.00 39.30	A
	ATOM	859	O	LYS	A	173	21.981	23.960	8.201	1.00 39.62	A
	ATOM	860	N	ILE	A	174	23.320	23.282	9.863	1.00 37.96	A
5	ATOM	861	CA	ILE	A	174	22.229	23.314	10.833	1.00 37.36	A
	ATOM	862	CB	ILE	A	174	22.159	21.998	11.652	1.00 37.44	A
	ATOM	863	CG2	ILE	A	174	22.058	20.802	10.709	1.00 38.37	A
	ATOM	864	CG1	ILE	A	174	23.397	21.850	12.532	1.00 37.25	A
	ATOM	865	CD1	ILE	A	174	23.355	20.620	13.418	1.00 36.85	A
10	ATOM	866	C	ILE	A	174	22.259	24.492	11.801	1.00 36.71	A
	ATOM	867	O	ILE	A	174	21.448	24.556	12.724	1.00 38.05	A
	ATOM	868	N	GLY	A	175	23.185	25.423	11.592	1.00 35.48	A
	ATOM	869	CA	GLY	A	175	23.265	26.585	12.462	1.00 35.29	A
	ATOM	870	C	GLY	A	175	24.053	26.360	13.737	1.00 35.06	A
15	ATOM	871	O	GLY	A	175	25.066	27.019	13.970	1.00 37.46	A
	ATOM	872	N	SER	A	176	23.581	25.441	14.571	1.00 33.94	A
	ATOM	873	CA	SER	A	176	24.253	25.113	15.822	1.00 32.84	A
	ATOM	874	CB	SER	A	176	23.938	26.155	16.901	1.00 33.54	A
	ATOM	875	OG	SER	A	176	22.599	26.056	17.347	1.00 34.86	A
20	ATOM	876	C	SER	A	176	23.796	23.731	16.276	1.00 32.34	A
	ATOM	877	O	SER	A	176	22.726	23.263	15.884	1.00 32.82	A
	ATOM	878	N	PHE	A	177	24.609	23.085	17.103	1.00 29.39	A
	ATOM	879	CA	PHE	A	177	24.313	21.743	17.597	1.00 27.20	A
	ATOM	880	CB	PHE	A	177	25.621	20.989	17.865	1.00 26.39	A
25	ATOM	881	CG	PHE	A	177	26.372	20.585	16.622	1.00 26.18	A
	ATOM	882	CD1	PHE	A	177	26.210	21.277	15.426	1.00 25.30	A
	ATOM	883	CD2	PHE	A	177	27.266	19.516	16.662	1.00 26.05	A
	ATOM	884	CE1	PHE	A	177	26.923	20.912	14.290	1.00 26.59	A
	ATOM	885	CE2	PHE	A	177	27.986	19.143	15.532	1.00 26.06	A
30	ATOM	886	CZ	PHE	A	177	27.815	19.841	14.343	1.00 25.42	A
	ATOM	887	C	PHE	A	177	23.500	21.752	18.884	1.00 27.00	A
	ATOM	888	O	PHE	A	177	23.704	22.610	19.747	1.00 26.48	A
	ATOM	889	N	ASP	A	178	22.578	20.802	19.022	1.00 26.70	A
	ATOM	890	CA	ASP	A	178	21.816	20.729	20.260	1.00 26.35	A
35	ATOM	891	CB	ASP	A	178	20.621	19.773	20.142	1.00 29.90	A
	ATOM	892	CG	ASP	A	178	21.020	18.372	19.720	1.00 32.28	A
	ATOM	893	OD1	ASP	A	178	22.157	17.949	20.014	1.00 35.21	A
	ATOM	894	OD2	ASP	A	178	20.179	17.683	19.105	1.00 34.79	A
	ATOM	895	C	ASP	A	178	22.810	20.228	21.311	1.00 25.03	A
40	ATOM	896	O	ASP	A	178	23.974	19.968	20.992	1.00 21.24	A
	ATOM	897	N	GLU	A	179	22.361	20.083	22.552	1.00 23.60	A
	ATOM	898	CA	GLU	A	179	23.247	19.644	23.619	1.00 25.18	A
	ATOM	899	CB	GLU	A	179	22.542	19.770	24.971	1.00 27.60	A
	ATOM	900	CG	GLU	A	179	23.324	19.176	26.130	1.00 32.58	A
45	ATOM	901	CD	GLU	A	179	22.997	19.845	27.449	1.00 35.82	A
	ATOM	902	OE1	GLU	A	179	21.825	20.224	27.645	1.00 35.95	A
	ATOM	903	OE2	GLU	A	179	23.912	19.984	28.291	1.00 38.19	A
	ATOM	904	C	GLU	A	179	23.808	18.235	23.450	1.00 24.08	A
	ATOM	905	O	GLU	A	179	24.977	17.989	23.756	1.00 22.79	A
50	ATOM	906	N	THR	A	180	22.983	17.316	22.961	1.00 23.36	A
	ATOM	907	CA	THR	A	180	23.412	15.935	22.761	1.00 22.15	A
	ATOM	908	CB	THR	A	180	22.224	15.054	22.320	1.00 23.77	A
	ATOM	909	OG1	THR	A	180	21.222	15.075	23.341	1.00 26.37	A
	ATOM	910	CG2	THR	A	180	22.670	13.616	22.088	1.00 22.66	A
55	ATOM	911	C	THR	A	180	24.533	15.830	21.724	1.00 22.01	A
	ATOM	912	O	THR	A	180	25.533	15.141	21.944	1.00 19.87	A
	ATOM	913	N	CYS	A	181	24.365	16.511	20.596	1.00 21.21	A
	ATOM	914	CA	CYS	A	181	25.372	16.480	19.541	1.00 22.22	A
	ATOM	915	CB	CYS	A	181	24.800	17.065	18.250	1.00 24.62	A

	ATOM	916	SG	CYS A 181	23.435	16.080	17.560	1.00	29.50	A
	ATOM	917	C	CYS A 181	26.633	17.232	19.954	1.00	23.07	A
	ATOM	918	O	CYS A 181	27.746	16.827	19.608	1.00	23.95	A
	ATOM	919	N	THR A 182	26.463	18.325	20.695	1.00	22.76	A
5	ATOM	920	CA	THR A 182	27.606	19.103	21.161	1.00	21.49	A
	ATOM	921	CB	THR A 182	27.167	20.346	21.978	1.00	21.37	A
	ATOM	922	OG1	THR A 182	26.459	21.262	21.134	1.00	22.50	A
	ATOM	923	CG2	THR A 182	28.379	21.046	22.565	1.00	18.36	A
	ATOM	924	C	THR A 182	28.454	18.215	22.071	1.00	21.48	A
10	ATOM	925	O	THR A 182	29.669	18.090	21.894	1.00	19.95	A
	ATOM	926	N	ARG A 183	27.798	17.602	23.050	1.00	18.97	A
	ATOM	927	CA	ARG A 183	28.468	16.723	23.996	1.00	19.39	A
	ATOM	928	CB	ARG A 183	27.455	16.140	24.984	1.00	19.46	A
	ATOM	929	CG	ARG A 183	28.030	15.062	25.887	1.00	18.77	A
15	ATOM	930	CD	ARG A 183	27.021	14.571	26.925	1.00	21.19	A
	ATOM	931	NE	ARG A 183	26.605	15.642	27.824	1.00	19.46	A
	ATOM	932	CZ	ARG A 183	25.496	16.362	27.679	1.00	20.45	A
	ATOM	933	NH1	ARG A 183	24.672	16.123	26.666	1.00	19.81	A
	ATOM	934	NH2	ARG A 183	25.224	17.338	28.539	1.00	17.11	A
20	ATOM	935	C	ARG A 183	29.206	15.577	23.302	1.00	20.02	A
	ATOM	936	O	ARG A 183	30.383	15.333	23.573	1.00	19.97	A
	ATOM	937	N	PHE A 184	28.520	14.871	22.409	1.00	19.24	A
	ATOM	938	CA	PHE A 184	29.144	13.746	21.722	1.00	18.04	A
	ATOM	939	CB	PHE A 184	28.158	13.078	20.764	1.00	21.05	A
25	ATOM	940	CG	PHE A 184	28.719	11.857	20.098	1.00	22.67	A
	ATOM	941	CD1	PHE A 184	28.717	10.630	20.754	1.00	22.97	A
	ATOM	942	CD2	PHE A 184	29.317	11.949	18.850	1.00	19.97	A
	ATOM	943	CE1	PHE A 184	29.308	9.510	20.176	1.00	23.53	A
	ATOM	944	CE2	PHE A 184	29.915	10.833	18.263	1.00	24.11	A
30	ATOM	945	CZ	PHE A 184	29.910	9.613	18.928	1.00	22.97	A
	ATOM	946	C	PHE A 184	30.403	14.127	20.941	1.00	17.99	A
	ATOM	947	O	PHE A 184	31.461	13.531	21.130	1.00	18.89	A
	ATOM	948	N	TYR A 185	30.292	15.110	20.056	1.00	15.73	A
	ATOM	949	CA	TYR A 185	31.443	15.519	19.265	1.00	15.72	A
35	ATOM	950	CB	TYR A 185	30.992	16.413	18.111	1.00	17.33	A
	ATOM	951	CG	TYR A 185	30.364	15.584	17.015	1.00	19.37	A
	ATOM	952	CD1	TYR A 185	31.159	14.809	16.168	1.00	16.53	A
	ATOM	953	CE1	TYR A 185	30.590	13.952	15.232	1.00	18.12	A
	ATOM	954	CD2	TYR A 185	28.976	15.484	16.892	1.00	18.18	A
40	ATOM	955	CE2	TYR A 185	28.398	14.623	15.956	1.00	18.90	A
	ATOM	956	CZ	TYR A 185	29.211	13.861	15.133	1.00	18.41	A
	ATOM	957	OH	TYR A 185	28.650	12.995	14.218	1.00	20.48	A
	ATOM	958	C	TYR A 185	32.544	16.172	20.083	1.00	15.79	A
	ATOM	959	O	TYR A 185	33.720	16.015	19.766	1.00	17.69	A
45	ATOM	960	N	THR A 186	32.176	16.887	21.142	1.00	15.68	A
	ATOM	961	CA	THR A 186	33.184	17.504	21.997	1.00	16.03	A
	ATOM	962	CB	THR A 186	32.559	18.403	23.094	1.00	16.62	A
	ATOM	963	OG1	THR A 186	31.866	19.503	22.481	1.00	14.79	A
	ATOM	964	CG2	THR A 186	33.656	18.953	24.019	1.00	14.68	A
50	ATOM	965	C	THR A 186	33.954	16.375	22.680	1.00	15.59	A
	ATOM	966	O	THR A 186	35.176	16.443	22.823	1.00	13.77	A
	ATOM	967	N	ALA A 187	33.234	15.333	23.097	1.00	14.06	A
	ATOM	968	CA	ALA A 187	33.869	14.196	23.757	1.00	14.74	A
	ATOM	969	CB	ALA A 187	32.810	13.195	24.224	1.00	14.32	A
55	ATOM	970	C	ALA A 187	34.875	13.509	22.821	1.00	14.41	A
	ATOM	971	O	ALA A 187	35.972	13.136	23.247	1.00	15.61	A
	ATOM	972	N	GLU A 188	34.516	13.340	21.549	1.00	14.01	A
	ATOM	973	CA	GLU A 188	35.443	12.704	20.615	1.00	13.50	A
	ATOM	974	CB	GLU A 188	34.782	12.449	19.251	1.00	12.85	A

	ATOM	975	CG	GLU A 188	33.622	11.454	19.282	1.00	12.71	A
	ATOM	976	CD	GLU A 188	33.464	10.685	17.979	1.00	15.01	A
	ATOM	977	OE1	GLU A 188	33.687	11.275	16.899	1.00	13.21	A
	ATOM	978	OE2	GLU A 188	33.110	9.484	18.031	1.00	17.69	A
5	ATOM	979	C	GLU A 188	36.682	13.582	20.436	1.00	13.34	A
	ATOM	980	O	GLU A 188	37.803	13.085	20.408	1.00	14.69	A
	ATOM	981	N	ILE A 189	36.486	14.893	20.326	1.00	13.52	A
	ATOM	982	CA	ILE A 189	37.627	15.787	20.159	1.00	13.35	A
	ATOM	983	CB	ILE A 189	37.169	17.247	19.939	1.00	13.95	A
10	ATOM	984	CG2	ILE A 189	38.381	18.165	19.822	1.00	12.47	A
	ATOM	985	CG1	ILE A 189	36.302	17.332	18.671	1.00	13.44	A
	ATOM	986	CD1	ILE A 189	35.588	18.664	18.491	1.00	14.29	A
	ATOM	987	C	ILE A 189	38.530	15.702	21.394	1.00	14.63	A
	ATOM	988	O	ILE A 189	39.753	15.595	21.271	1.00	12.97	A
15	ATOM	989	N	VAL A 190	37.927	15.751	22.582	1.00	14.35	A
	ATOM	990	CA	VAL A 190	38.684	15.655	23.832	1.00	13.22	A
	ATOM	991	CB	VAL A 190	37.743	15.690	25.061	1.00	14.28	A
	ATOM	992	CG1	VAL A 190	38.509	15.267	26.326	1.00	15.08	A
	ATOM	993	CG2	VAL A 190	37.160	17.082	25.233	1.00	12.08	A
20	ATOM	994	C	VAL A 190	39.468	14.338	23.859	1.00	14.61	A
	ATOM	995	O	VAL A 190	40.634	14.304	24.250	1.00	13.72	A
	ATOM	996	N	SER A 191	38.825	13.254	23.432	1.00	15.26	A
	ATOM	997	CA	SER A 191	39.478	11.943	23.421	1.00	16.81	A
	ATOM	998	CB	SER A 191	38.470	10.857	23.041	1.00	16.14	A
25	ATOM	999	OG	SER A 191	39.018	9.569	23.238	1.00	16.94	A
	ATOM	1000	C	SER A 191	40.649	11.928	22.441	1.00	16.58	A
	ATOM	1001	O	SER A 191	41.697	11.335	22.713	1.00	13.96	A
	ATOM	1002	N	ALA A 192	40.468	12.586	21.300	1.00	15.26	A
	ATOM	1003	CA	ALA A 192	41.518	12.645	20.292	1.00	14.37	A
30	ATOM	1004	CB	ALA A 192	40.989	13.296	19.016	1.00	14.43	A
	ATOM	1005	C	ALA A 192	42.695	13.440	20.845	1.00	16.46	A
	ATOM	1006	O	ALA A 192	43.851	13.038	20.697	1.00	17.96	A
	ATOM	1007	N	LEU A 193	42.401	14.563	21.496	1.00	15.02	A
	ATOM	1008	CA	LEU A 193	43.459	15.392	22.067	1.00	15.42	A
35	ATOM	1009	CB	LEU A 193	42.884	16.712	22.600	1.00	12.88	A
	ATOM	1010	CG	LEU A 193	42.445	17.721	21.525	1.00	15.97	A
	ATOM	1011	CD1	LEU A 193	41.869	18.979	22.190	1.00	13.97	A
	ATOM	1012	CD2	LEU A 193	43.642	18.088	20.655	1.00	14.58	A
	ATOM	1013	C	LEU A 193	44.211	14.659	23.174	1.00	14.49	A
40	ATOM	1014	O	LEU A 193	45.427	14.813	23.310	1.00	16.56	A
	ATOM	1015	N	GLU A 194	43.500	13.870	23.975	1.00	13.96	A
	ATOM	1016	CA	GLU A 194	44.179	13.123	25.032	1.00	14.08	A
	ATOM	1017	CB	GLU A 194	43.190	12.295	25.857	1.00	14.65	A
	ATOM	1018	CG	GLU A 194	43.882	11.301	26.789	1.00	17.09	A
45	ATOM	1019	CD	GLU A 194	42.924	10.592	27.730	1.00	19.59	A
	ATOM	1020	OE1	GLU A 194	41.809	10.237	27.295	1.00	19.25	A
	ATOM	1021	OE2	GLU A 194	43.302	10.380	28.906	1.00	20.20	A
	ATOM	1022	C	GLU A 194	45.208	12.199	24.386	1.00	13.57	A
	ATOM	1023	O	GLU A 194	46.337	12.093	24.847	1.00	14.23	A
50	ATOM	1024	N	TYR A 195	44.822	11.544	23.301	1.00	14.89	A
	ATOM	1025	CA	TYR A 195	45.743	10.642	22.618	1.00	16.58	A
	ATOM	1026	CB	TYR A 195	45.030	9.910	21.488	1.00	17.29	A
	ATOM	1027	CG	TYR A 195	45.956	9.058	20.649	1.00	17.92	A
	ATOM	1028	CD1	TYR A 195	46.347	7.788	21.077	1.00	17.96	A
55	ATOM	1029	CE1	TYR A 195	47.203	6.996	20.304	1.00	19.77	A
	ATOM	1030	CD2	TYR A 195	46.445	9.524	19.428	1.00	16.67	A
	ATOM	1031	CE2	TYR A 195	47.299	8.744	18.650	1.00	18.51	A
	ATOM	1032	CZ	TYR A 195	47.671	7.481	19.094	1.00	20.24	A
	ATOM	1033	OH	TYR A 195	48.506	6.705	18.325	1.00	21.89	A

	ATOM	1034	C	TYR A 195	46.917	11.419	22.035	1.00	16.98	A
	ATOM	1035	O	TYR A 195	48.081	11.047	22.203	1.00	14.61	A
	ATOM	1036	N	LEU A 196	46.599	12.507	21.347	1.00	16.30	A
	ATOM	1037	CA	LEU A 196	47.619	13.328	20.720	1.00	18.15	A
5	ATOM	1038	CB	LEU A 196	46.969	14.502	19.982	1.00	18.59	A
	ATOM	1039	CG	LEU A 196	47.834	15.203	18.935	1.00	22.51	A
	ATOM	1040	CD1	LEU A 196	48.222	14.206	17.841	1.00	20.94	A
	ATOM	1041	CD2	LEU A 196	47.060	16.375	18.338	1.00	22.98	A
	ATOM	1042	C	LEU A 196	48.592	13.844	21.763	1.00	17.75	A
10	ATOM	1043	O	LEU A 196	49.801	13.644	21.649	1.00	18.33	A
	ATOM	1044	N	HIS A 197	48.064	14.495	22.792	1.00	17.12	A
	ATOM	1045	CA	HIS A 197	48.913	15.042	23.842	1.00	18.47	A
	ATOM	1046	CB	HIS A 197	48.069	15.866	24.817	1.00	15.90	A
	ATOM	1047	CG	HIS A 197	47.571	17.152	24.231	1.00	19.15	A
15	ATOM	1048	CD2	HIS A 197	47.830	17.745	23.038	1.00	18.22	A
	ATOM	1049	ND1	HIS A 197	46.704	17.992	24.897	1.00	17.47	A
	ATOM	1050	CE1	HIS A 197	46.450	19.047	24.139	1.00	19.74	A
	ATOM	1051	NE2	HIS A 197	47.119	18.921	23.007	1.00	15.69	A
	ATOM	1052	C	HIS A 197	49.696	13.958	24.572	1.00	19.40	A
20	ATOM	1053	O	HIS A 197	50.823	14.192	25.021	1.00	19.42	A
	ATOM	1054	N	GLY A 198	49.106	12.770	24.679	1.00	18.59	A
	ATOM	1055	CA	GLY A 198	49.793	11.675	25.339	1.00	19.60	A
	ATOM	1056	C	GLY A 198	51.075	11.307	24.612	1.00	21.86	A
	ATOM	1057	O	GLY A 198	51.963	10.682	25.186	1.00	23.09	A
25	ATOM	1058	N	LYS A 199	51.174	11.687	23.341	1.00	22.81	A
	ATOM	1059	CA	LYS A 199	52.368	11.401	22.549	1.00	24.43	A
	ATOM	1060	CB	LYS A 199	51.990	10.905	21.154	1.00	26.00	A
	ATOM	1061	CG	LYS A 199	51.378	9.520	21.133	1.00	30.98	A
	ATOM	1062	CD	LYS A 199	51.291	9.002	19.708	1.00	36.85	A
30	ATOM	1063	CE	LYS A 199	50.832	7.559	19.682	1.00	40.37	A
	ATOM	1064	NZ	LYS A 199	51.646	6.691	20.581	1.00	43.48	A
	ATOM	1065	C	LYS A 199	53.253	12.631	22.414	1.00	23.88	A
	ATOM	1066	O	LYS A 199	54.144	12.669	21.568	1.00	24.97	A
	ATOM	1067	N	GLY A 200	52.997	13.638	23.243	1.00	24.00	A
35	ATOM	1068	CA	GLY A 200	53.790	14.853	23.203	1.00	22.12	A
	ATOM	1069	C	GLY A 200	53.665	15.632	21.907	1.00	22.14	A
	ATOM	1070	O	GLY A 200	54.632	16.231	21.439	1.00	22.41	A
	ATOM	1071	N	ILE A 201	52.475	15.630	21.320	1.00	20.00	A
	ATOM	1072	CA	ILE A 201	52.252	16.355	20.080	1.00	18.93	A
40	ATOM	1073	CB	ILE A 201	51.784	15.414	18.955	1.00	19.70	A
	ATOM	1074	CG2	ILE A 201	51.414	16.226	17.716	1.00	20.12	A
	ATOM	1075	CG1	ILE A 201	52.880	14.395	18.636	1.00	20.03	A
	ATOM	1076	CD1	ILE A 201	52.408	13.258	17.745	1.00	22.75	A
	ATOM	1077	C	ILE A 201	51.193	17.425	20.270	1.00	19.87	A
45	ATOM	1078	O	ILE A 201	50.121	17.161	20.817	1.00	20.08	A
	ATOM	1079	N	ILE A 202	51.508	18.633	19.815	1.00	19.94	A
	ATOM	1080	CA	ILE A 202	50.601	19.772	19.891	1.00	20.45	A
	ATOM	1081	CB	ILE A 202	51.352	21.040	20.356	1.00	22.21	A
	ATOM	1082	CG2	ILE A 202	50.381	22.220	20.470	1.00	22.67	A
50	ATOM	1083	CG1	ILE A 202	52.033	20.775	21.700	1.00	24.19	A
	ATOM	1084	CD1	ILE A 202	52.914	21.920	22.169	1.00	25.39	A
	ATOM	1085	C	ILE A 202	50.105	19.999	18.464	1.00	20.71	A
	ATOM	1086	O	ILE A 202	50.910	20.067	17.538	1.00	19.48	A
	ATOM	1087	N	HIS A 203	48.795	20.108	18.270	1.00	18.65	A
55	ATOM	1088	CA	HIS A 203	48.280	20.319	16.919	1.00	18.02	A
	ATOM	1089	CB	HIS A 203	46.775	20.057	16.874	1.00	16.31	A
	ATOM	1090	CG	HIS A 203	46.199	20.136	15.495	1.00	18.36	A
	ATOM	1091	CD2	HIS A 203	46.043	21.186	14.655	1.00	16.42	A
	ATOM	1092	ND1	HIS A 203	45.759	19.026	14.806	1.00	19.50	A

	ATOM	1093	CE1	HIS	A	203	45.359	19.389	13.600	1.00	17.64	A
	ATOM	1094	NE2	HIS	A	203	45.522	20.694	13.483	1.00	20.87	A
	ATOM	1095	C	HIS	A	203	48.589	21.738	16.405	1.00	18.92	A
	ATOM	1096	O	HIS	A	203	49.073	21.906	15.282	1.00	16.21	A
5	ATOM	1097	N	ARG	A	204	48.301	22.744	17.232	1.00	18.60	A
	ATOM	1098	CA	ARG	A	204	48.552	24.157	16.914	1.00	19.81	A
	ATOM	1099	CB	ARG	A	204	49.998	24.365	16.458	1.00	21.61	A
	ATOM	1100	CG	ARG	A	204	51.024	24.137	17.550	1.00	23.82	A
	ATOM	1101	CD	ARG	A	204	52.323	24.870	17.252	1.00	27.62	A
10	ATOM	1102	NE	ARG	A	204	52.932	24.449	15.994	1.00	29.43	A
	ATOM	1103	CZ	ARG	A	204	54.125	24.861	15.572	1.00	33.10	A
	ATOM	1104	NH1	ARG	A	204	54.835	25.706	16.311	1.00	32.12	A
	ATOM	1105	NH2	ARG	A	204	54.614	24.426	14.418	1.00	30.25	A
	ATOM	1106	C	ARG	A	204	47.624	24.830	15.905	1.00	20.03	A
15	ATOM	1107	O	ARG	A	204	47.711	26.038	15.698	1.00	20.88	A
	ATOM	1108	N	ASP	A	205	46.755	24.071	15.255	1.00	18.96	A
	ATOM	1109	CA	ASP	A	205	45.828	24.692	14.325	1.00	17.90	A
	ATOM	1110	CB	ASP	A	205	46.418	24.741	12.914	1.00	18.95	A
	ATOM	1111	CG	ASP	A	205	45.655	25.688	12.008	1.00	20.36	A
20	ATOM	1112	OD1	ASP	A	205	44.939	26.560	12.545	1.00	20.35	A
	ATOM	1113	OD2	ASP	A	205	45.772	25.573	10.771	1.00	22.49	A
	ATOM	1114	C	ASP	A	205	44.500	23.956	14.328	1.00	19.60	A
	ATOM	1115	O	ASP	A	205	43.876	23.751	13.287	1.00	21.53	A
	ATOM	1116	N	LEU	A	206	44.063	23.569	15.521	1.00	18.53	A
25	ATOM	1117	CA	LEU	A	206	42.813	22.851	15.667	1.00	19.18	A
	ATOM	1118	CB	LEU	A	206	42.693	22.295	17.087	1.00	18.94	A
	ATOM	1119	CG	LEU	A	206	41.511	21.358	17.346	1.00	23.10	A
	ATOM	1120	CD1	LEU	A	206	41.615	20.142	16.436	1.00	23.01	A
	ATOM	1121	CD2	LEU	A	206	41.504	20.933	18.808	1.00	22.97	A
30	ATOM	1122	C	LEU	A	206	41.639	23.772	15.361	1.00	19.05	A
	ATOM	1123	O	LEU	A	206	41.556	24.880	15.886	1.00	19.25	A
	ATOM	1124	N	LYS	A	207	40.740	23.307	14.500	1.00	17.54	A
	ATOM	1125	CA	LYS	A	207	39.564	24.081	14.110	1.00	18.60	A
	ATOM	1126	CB	LYS	A	207	39.980	25.248	13.196	1.00	18.98	A
35	ATOM	1127	CG	LYS	A	207	40.786	24.817	11.982	1.00	18.20	A
	ATOM	1128	CD	LYS	A	207	41.246	26.000	11.139	1.00	21.42	A
	ATOM	1129	CE	LYS	A	207	42.223	25.537	10.062	1.00	23.21	A
	ATOM	1130	NZ	LYS	A	207	42.561	26.604	9.084	1.00	29.61	A
	ATOM	1131	C	LYS	A	207	38.566	23.181	13.388	1.00	18.18	A
40	ATOM	1132	O	LYS	A	207	38.921	22.100	12.915	1.00	18.11	A
	ATOM	1133	N	PRO	A	208	37.298	23.614	13.293	1.00	20.26	A
	ATOM	1134	CD	PRO	A	208	36.713	24.833	13.882	1.00	18.79	A
	ATOM	1135	CA	PRO	A	208	36.272	22.814	12.616	1.00	19.67	A
	ATOM	1136	CB	PRO	A	208	35.063	23.742	12.608	1.00	19.45	A
45	ATOM	1137	CG	PRO	A	208	35.231	24.509	13.891	1.00	21.81	A
	ATOM	1138	C	PRO	A	208	36.674	22.372	11.209	1.00	21.04	A
	ATOM	1139	O	PRO	A	208	36.264	21.307	10.751	1.00	21.19	A
	ATOM	1140	N	GLU	A	209	37.474	23.188	10.528	1.00	21.69	A
	ATOM	1141	CA	GLU	A	209	37.928	22.872	9.170	1.00	22.64	A
50	ATOM	1142	CB	GLU	A	209	38.644	24.084	8.558	1.00	23.65	A
	ATOM	1143	CG	GLU	A	209	39.253	23.825	7.185	1.00	27.24	A
	ATOM	1144	CD	GLU	A	209	40.155	24.958	6.716	1.00	29.40	A
	ATOM	1145	OE1	GLU	A	209	39.660	26.094	6.553	1.00	29.68	A
	ATOM	1146	OE2	GLU	A	209	41.363	24.711	6.511	1.00	30.07	A
55	ATOM	1147	C	GLU	A	209	38.879	21.668	9.159	1.00	22.28	A
	ATOM	1148	O	GLU	A	209	38.955	20.933	8.170	1.00	21.36	A
	ATOM	1149	N	ASN	A	210	39.600	21.490	10.263	1.00	19.90	A
	ATOM	1150	CA	ASN	A	210	40.574	20.412	10.436	1.00	19.44	A
	ATOM	1151	CB	ASN	A	210	41.744	20.912	11.287	1.00	20.07	A

	ATOM	1152	CG	ASN A 210	42.746	21.698	10.479	1.00	25.77	A
	ATOM	1153	OD1	ASN A 210	43.571	22.427	11.029	1.00	26.73	A
	ATOM	1154	ND2	ASN A 210	42.687	21.548	9.158	1.00	25.15	A
	ATOM	1155	C	ASN A 210	40.005	19.151	11.078	1.00	18.63	A
5	ATOM	1156	O	ASN A 210	40.712	18.154	11.234	1.00	18.29	A
	ATOM	1157	N	ILE A 211	38.739	19.202	11.469	1.00	16.31	A
	ATOM	1158	CA	ILE A 211	38.090	18.058	12.085	1.00	15.49	A
	ATOM	1159	CB	ILE A 211	37.336	18.488	13.354	1.00	15.40	A
	ATOM	1160	CG2	ILE A 211	36.582	17.311	13.950	1.00	14.59	A
10	ATOM	1161	CG1	ILE A 211	38.342	19.046	14.365	1.00	15.91	A
	ATOM	1162	CD1	ILE A 211	37.720	19.669	15.590	1.00	15.98	A
	ATOM	1163	C	ILE A 211	37.131	17.485	11.059	1.00	17.26	A
	ATOM	1164	O	ILE A 211	35.995	17.947	10.926	1.00	18.16	A
	ATOM	1165	N	LEU A 212	37.599	16.486	10.317	1.00	15.97	A
15	ATOM	1166	CA	LEU A 212	36.784	15.875	9.274	1.00	17.08	A
	ATOM	1167	CB	LEU A 212	37.685	15.249	8.202	1.00	17.78	A
	ATOM	1168	CG	LEU A 212	38.785	16.157	7.640	1.00	18.92	A
	ATOM	1169	CD1	LEU A 212	39.476	15.450	6.485	1.00	22.09	A
	ATOM	1170	CD2	LEU A 212	38.188	17.482	7.166	1.00	19.91	A
20	ATOM	1171	C	LEU A 212	35.843	14.825	9.837	1.00	18.35	A
	ATOM	1172	O	LEU A 212	35.957	14.433	11.002	1.00	19.39	A
	ATOM	1173	N	LEU A 213	34.915	14.368	9.000	1.00	17.84	A
	ATOM	1174	CA	LEU A 213	33.942	13.362	9.403	1.00	19.94	A
	ATOM	1175	CB	LEU A 213	32.556	14.004	9.487	1.00	20.84	A
25	ATOM	1176	CG	LEU A 213	32.396	15.059	10.583	1.00	20.31	A
	ATOM	1177	CD1	LEU A 213	31.124	15.837	10.367	1.00	22.75	A
	ATOM	1178	CD2	LEU A 213	32.379	14.378	11.940	1.00	23.93	A
	ATOM	1179	C	LEU A 213	33.914	12.187	8.426	1.00	20.98	A
	ATOM	1180	O	LEU A 213	33.743	12.379	7.218	1.00	19.55	A
30	ATOM	1181	N	ASN A 214	34.088	10.970	8.935	1.00	20.44	A
	ATOM	1182	CA	ASN A 214	34.055	9.814	8.049	1.00	23.77	A
	ATOM	1183	CB	ASN A 214	34.745	8.596	8.674	1.00	25.30	A
	ATOM	1184	CG	ASN A 214	34.077	8.127	9.948	1.00	32.04	A
	ATOM	1185	OD1	ASN A 214	32.908	8.422	10.206	1.00	34.43	A
35	ATOM	1186	ND2	ASN A 214	34.818	7.369	10.752	1.00	33.85	A
	ATOM	1187	C	ASN A 214	32.618	9.466	7.693	1.00	24.07	A
	ATOM	1188	O	ASN A 214	31.672	10.113	8.150	1.00	19.94	A
	ATOM	1189	N	GLU A 215	32.459	8.433	6.879	1.00	25.77	A
	ATOM	1190	CA	GLU A 215	31.138	8.003	6.445	1.00	28.69	A
40	ATOM	1191	CB	GLU A 215	31.275	6.796	5.513	1.00	31.98	A
	ATOM	1192	CG	GLU A 215	29.970	6.334	4.896	1.00	40.22	A
	ATOM	1193	CD	GLU A 215	30.182	5.312	3.795	1.00	44.27	A
	ATOM	1194	OE1	GLU A 215	30.817	4.268	4.065	1.00	46.46	A
	ATOM	1195	OE2	GLU A 215	29.716	5.556	2.660	1.00	46.13	A
45	ATOM	1196	C	GLU A 215	30.188	7.673	7.601	1.00	28.41	A
	ATOM	1197	O	GLU A 215	28.971	7.769	7.447	1.00	28.52	A
	ATOM	1198	N	ASP A 216	30.737	7.287	8.752	1.00	26.77	A
	ATOM	1199	CA	ASP A 216	29.914	6.953	9.917	1.00	27.28	A
	ATOM	1200	CB	ASP A 216	30.538	5.795	10.696	1.00	31.27	A
50	ATOM	1201	CG	ASP A 216	30.390	4.466	9.979	1.00	37.61	A
	ATOM	1202	OD1	ASP A 216	29.274	4.170	9.499	1.00	39.45	A
	ATOM	1203	OD2	ASP A 216	31.382	3.710	9.902	1.00	41.84	A
	ATOM	1204	C	ASP A 216	29.697	8.135	10.862	1.00	26.37	A
	ATOM	1205	O	ASP A 216	29.136	7.984	11.950	1.00	25.73	A
55	ATOM	1206	N	MET A 217	30.156	9.306	10.441	1.00	23.02	A
	ATOM	1207	CA	MET A 217	30.015	10.527	11.218	1.00	21.83	A
	ATOM	1208	CB	MET A 217	28.537	10.789	11.517	1.00	23.24	A
	ATOM	1209	CG	MET A 217	27.742	11.186	10.274	1.00	22.98	A
	ATOM	1210	SD	MET A 217	28.464	12.616	9.430	1.00	27.57	A

	ATOM	1211	CE	MET A 217	27.679	13.974	10.332	1.00	26.68	A
	ATOM	1212	C	MET A 217	30.844	10.618	12.502	1.00	21.51	A
	ATOM	1213	O	MET A 217	30.474	11.323	13.440	1.00	18.62	A
	ATOM	1214	N	HIS A 218	31.957	9.892	12.544	1.00	20.10	A
5	ATOM	1215	CA	HIS A 218	32.873	9.964	13.678	1.00	19.86	A
	ATOM	1216	CB	HIS A 218	33.482	8.594	13.977	1.00	20.21	A
	ATOM	1217	CG	HIS A 218	32.551	7.667	14.698	1.00	22.40	A
	ATOM	1218	CD2	HIS A 218	31.910	6.547	14.287	1.00	21.27	A
	ATOM	1219	ND1	HIS A 218	32.177	7.863	16.011	1.00	19.59	A
10	ATOM	1220	CE1	HIS A 218	31.348	6.902	16.379	1.00	21.88	A
	ATOM	1221	NE2	HIS A 218	31.168	6.091	15.351	1.00	22.08	A
	ATOM	1222	C	HIS A 218	33.947	10.921	13.172	1.00	19.10	A
	ATOM	1223	O	HIS A 218	34.170	11.004	11.965	1.00	20.31	A
	ATOM	1224	N	ILE A 219	34.617	11.638	14.067	1.00	17.21	A
15	ATOM	1225	CA	ILE A 219	35.628	12.586	13.618	1.00	15.26	A
	ATOM	1226	CB	ILE A 219	35.987	13.614	14.716	1.00	15.38	A
	ATOM	1227	CG2	ILE A 219	34.722	14.305	15.221	1.00	14.58	A
	ATOM	1228	CG1	ILE A 219	36.734	12.919	15.864	1.00	14.46	A
	ATOM	1229	CD1	ILE A 219	37.279	13.885	16.911	1.00	13.74	A
20	ATOM	1230	C	ILE A 219	36.929	11.944	13.161	1.00	16.21	A
	ATOM	1231	O	ILE A 219	37.238	10.799	13.500	1.00	15.88	A
	ATOM	1232	N	GLN A 220	37.677	12.711	12.378	1.00	15.62	A
	ATOM	1233	CA	GLN A 220	38.980	12.316	11.876	1.00	17.84	A
	ATOM	1234	CB	GLN A 220	38.872	11.595	10.525	1.00	20.00	A
25	ATOM	1235	CG	GLN A 220	38.463	10.129	10.659	1.00	26.97	A
	ATOM	1236	CD	GLN A 220	38.648	9.343	9.372	1.00	29.95	A
	ATOM	1237	OE1	GLN A 220	37.968	9.590	8.373	1.00	33.12	A
	ATOM	1238	NE2	GLN A 220	39.578	8.393	9.389	1.00	30.47	A
	ATOM	1239	C	GLN A 220	39.757	13.610	11.735	1.00	17.00	A
30	ATOM	1240	O	GLN A 220	39.609	14.339	10.751	1.00	18.27	A
	ATOM	1241	N	ILE A 221	40.566	13.906	12.746	1.00	14.34	A
	ATOM	1242	CA	ILE A 221	41.361	15.120	12.753	1.00	14.46	A
	ATOM	1243	CB	ILE A 221	41.867	15.416	14.175	1.00	12.30	A
	ATOM	1244	CG2	ILE A 221	42.764	16.656	14.167	1.00	14.78	A
35	ATOM	1245	CG1	ILE A 221	40.660	15.613	15.102	1.00	13.92	A
	ATOM	1246	CD1	ILE A 221	41.003	15.901	16.543	1.00	15.06	A
	ATOM	1247	C	ILE A 221	42.536	14.996	11.783	1.00	15.44	A
	ATOM	1248	O	ILE A 221	43.106	13.915	11.613	1.00	13.93	A
	ATOM	1249	N	THR A 222	42.877	16.101	11.127	1.00	15.36	A
40	ATOM	1250	CA	THR A 222	43.980	16.098	10.174	1.00	17.52	A
	ATOM	1251	CB	THR A 222	43.470	15.836	8.750	1.00	19.92	A
	ATOM	1252	OG1	THR A 222	44.587	15.637	7.875	1.00	18.78	A
	ATOM	1253	CG2	THR A 222	42.630	17.018	8.257	1.00	18.16	A
	ATOM	1254	C	THR A 222	44.735	17.428	10.192	1.00	19.60	A
45	ATOM	1255	O	THR A 222	44.509	18.257	11.084	1.00	18.59	A
	ATOM	1256	N	ASP A 223	45.630	17.610	9.216	1.00	18.69	A
	ATOM	1257	CA	ASP A 223	46.440	18.825	9.069	1.00	20.12	A
	ATOM	1258	CB	ASP A 223	45.532	20.065	9.108	1.00	23.51	A
	ATOM	1259	CG	ASP A 223	46.248	21.335	8.670	1.00	27.09	A
50	ATOM	1260	OD1	ASP A 223	47.283	21.227	7.975	1.00	26.28	A
	ATOM	1261	OD2	ASP A 223	45.765	22.438	9.009	1.00	26.15	A
	ATOM	1262	C	ASP A 223	47.516	18.913	10.150	1.00	21.73	A
	ATOM	1263	O	ASP A 223	47.439	19.751	11.055	1.00	22.76	A
	ATOM	1264	N	PHE A 224	48.535	18.063	10.027	1.00	20.75	A
55	ATOM	1265	CA	PHE A 224	49.611	17.988	11.009	1.00	20.11	A
	ATOM	1266	CB	PHE A 224	49.805	16.527	11.424	1.00	20.62	A
	ATOM	1267	CG	PHE A 224	48.682	15.991	12.263	1.00	21.41	A
	ATOM	1268	CD1	PHE A 224	48.598	16.312	13.614	1.00	23.05	A
	ATOM	1269	CD2	PHE A 224	47.681	15.212	11.693	1.00	22.27	A

	ATOM	1270	CE1	PHE	A	224	47.528	15.868	14.389	1.00	23.30	A
	ATOM	1271	CE2	PHE	A	224	46.606	14.763	12.457	1.00	21.11	A
	ATOM	1272	CZ	PHE	A	224	46.530	15.093	13.807	1.00	22.02	A
	ATOM	1273	C	PHE	A	224	50.957	18.583	10.619	1.00	20.45	A
5	ATOM	1274	O	PHE	A	224	51.905	18.547	11.407	1.00	20.73	A
	ATOM	1275	N	GLY	A	225	51.049	19.125	9.412	1.00	22.02	A
	ATOM	1276	CA	GLY	A	225	52.301	19.713	8.981	1.00	22.66	A
	ATOM	1277	C	GLY	A	225	52.742	20.822	9.920	1.00	24.99	A
	ATOM	1278	O	GLY	A	225	53.939	21.041	10.122	1.00	24.52	A
10	ATOM	1279	N	THR	A	226	51.779	21.524	10.508	1.00	23.50	A
	ATOM	1280	CA	THR	A	226	52.106	22.613	11.416	1.00	25.16	A
	ATOM	1281	CB	THR	A	226	51.199	23.829	11.160	1.00	24.76	A
	ATOM	1282	OG1	THR	A	226	49.831	23.410	11.113	1.00	22.68	A
	ATOM	1283	CG2	THR	A	226	51.571	24.490	9.834	1.00	25.00	A
15	ATOM	1284	C	THR	A	226	52.046	22.233	12.894	1.00	25.79	A
	ATOM	1285	O	THR	A	226	52.019	23.100	13.768	1.00	24.54	A
	ATOM	1286	N	ALA	A	227	52.037	20.935	13.173	1.00	24.97	A
	ATOM	1287	CA	ALA	A	227	52.004	20.475	14.550	1.00	25.49	A
	ATOM	1288	CB	ALA	A	227	51.659	18.993	14.607	1.00	22.85	A
20	ATOM	1289	C	ALA	A	227	53.384	20.715	15.149	1.00	27.70	A
	ATOM	1290	O	ALA	A	227	54.331	21.047	14.435	1.00	26.60	A
	ATOM	1291	N	LYS	A	228	53.491	20.558	16.461	1.00	28.53	A
	ATOM	1292	CA	LYS	A	228	54.760	20.745	17.149	1.00	32.12	A
	ATOM	1293	CB	LYS	A	228	54.699	21.974	18.054	1.00	33.81	A
25	ATOM	1294	CG	LYS	A	228	56.007	22.294	18.765	1.00	41.23	A
	ATOM	1295	CD	LYS	A	228	57.082	22.725	17.768	1.00	47.57	A
	ATOM	1296	CE	LYS	A	228	58.401	23.056	18.462	1.00	49.82	A
	ATOM	1297	NZ	LYS	A	228	59.459	23.425	17.480	1.00	51.49	A
	ATOM	1298	C	LYS	A	228	55.019	19.504	17.985	1.00	33.25	A
30	ATOM	1299	O	LYS	A	228	54.190	19.129	18.815	1.00	33.70	A
	ATOM	1300	N	VAL	A	229	56.159	18.860	17.756	1.00	33.64	A
	ATOM	1301	CA	VAL	A	229	56.516	17.661	18.501	1.00	34.66	A
	ATOM	1302	CB	VAL	A	229	57.248	16.646	17.609	1.00	33.50	A
	ATOM	1303	CG1	VAL	A	229	57.619	15.419	18.415	1.00	32.34	A
35	ATOM	1304	CG2	VAL	A	229	56.370	16.264	16.436	1.00	34.25	A
	ATOM	1305	C	VAL	A	229	57.420	18.035	19.668	1.00	37.57	A
	ATOM	1306	O	VAL	A	229	58.581	18.392	19.474	1.00	35.91	A
	ATOM	1307	N	LEU	A	230	56.877	17.948	20.878	1.00	40.57	A
	ATOM	1308	CA	LEU	A	230	57.615	18.289	22.088	1.00	46.10	A
40	ATOM	1309	CB	LEU	A	230	56.654	18.417	23.270	1.00	44.71	A
	ATOM	1310	CG	LEU	A	230	55.627	19.545	23.207	1.00	44.50	A
	ATOM	1311	CD1	LEU	A	230	54.673	19.430	24.383	1.00	44.39	A
	ATOM	1312	CD2	LEU	A	230	56.340	20.885	23.214	1.00	44.81	A
	ATOM	1313	C	LEU	A	230	58.695	17.279	22.440	1.00	50.42	A
45	ATOM	1314	O	LEU	A	230	58.603	16.104	22.089	1.00	51.64	A
	ATOM	1315	N	SER	A	231	59.717	17.756	23.145	1.00	55.81	A
	ATOM	1316	CA	SER	A	231	60.824	16.914	23.583	1.00	61.14	A
	ATOM	1317	CB	SER	A	231	62.077	17.200	22.750	1.00	61.27	A
	ATOM	1318	OG	SER	A	231	62.444	18.568	22.823	1.00	62.85	A
50	ATOM	1319	C	SER	A	231	61.124	17.126	25.071	1.00	64.65	A
	ATOM	1320	O	SER	A	231	61.392	16.164	25.794	1.00	65.70	A
	ATOM	1321	N	PRO	A	232	61.081	18.387	25.549	1.00	67.54	A
	ATOM	1322	CD	PRO	A	232	60.854	19.651	24.823	1.00	68.60	A
	ATOM	1323	CA	PRO	A	232	61.358	18.655	26.966	1.00	68.74	A
55	ATOM	1324	CB	PRO	A	232	61.109	20.158	27.086	1.00	68.83	A
	ATOM	1325	CG	PRO	A	232	61.505	20.666	25.737	1.00	68.96	A
	ATOM	1326	C	PRO	A	232	60.460	17.846	27.899	1.00	69.17	A
	ATOM	1327	O	PRO	A	232	59.335	17.494	27.541	1.00	69.94	A
	ATOM	1328	N	ALA	A	237	57.424	23.198	27.637	1.00	80.06	A

	ATOM	1329	CA	ALA A 237	56.783	23.047	26.335	1.00	79.29	A
	ATOM	1330	CB	ALA A 237	55.275	22.907	26.512	1.00	78.64	A
	ATOM	1331	C	ALA A 237	57.092	24.239	25.433	1.00	79.07	A
	ATOM	1332	O	ALA A 237	56.250	25.113	25.249	1.00	79.47	A
5	ATOM	1333	N	ALA A 238	58.297	24.280	24.871	1.00	78.57	A
	ATOM	1334	CA	ALA A 238	58.683	25.383	23.992	1.00	78.50	A
	ATOM	1335	CB	ALA A 238	60.186	25.347	23.728	1.00	78.50	A
	ATOM	1336	C	ALA A 238	57.920	25.327	22.673	1.00	78.15	A
	ATOM	1337	O	ALA A 238	57.243	24.341	22.375	1.00	77.96	A
10	ATOM	1338	N	ALA A 239	58.027	26.393	21.887	1.00	77.28	A
	ATOM	1339	CA	ALA A 239	57.338	26.452	20.603	1.00	76.27	A
	ATOM	1340	CB	ALA A 239	55.849	26.489	20.827	1.00	76.61	A
	ATOM	1341	C	ALA A 239	57.766	27.667	19.793	1.00	75.38	A
	ATOM	1342	O	ALA A 239	58.955	27.955	19.700	1.00	75.89	A
15	ATOM	1343	N	ASN A 240	56.781	28.357	19.214	1.00	73.95	A
	ATOM	1344	CA	ASN A 240	56.967	29.553	18.389	1.00	71.07	A
	ATOM	1345	CB	ASN A 240	58.151	30.400	18.874	1.00	71.47	A
	ATOM	1346	CG	ASN A 240	59.459	30.055	18.174	1.00	72.06	A
	ATOM	1347	OD1	ASN A 240	59.575	30.149	16.943	1.00	72.03	A
20	ATOM	1348	ND2	ASN A 240	60.470	29.665	18.964	1.00	71.91	A
	ATOM	1349	C	ASN A 240	57.188	29.178	16.928	1.00	69.41	A
	ATOM	1350	O	ASN A 240	57.480	28.024	16.624	1.00	70.09	A
	ATOM	1351	N	ALA A 241	57.055	30.165	16.038	1.00	66.62	A
	ATOM	1352	CA	ALA A 241	57.246	30.013	14.585	1.00	63.94	A
25	ATOM	1353	C	ALA A 241	55.952	30.080	13.772	1.00	60.63	A
	ATOM	1354	O	ALA A 241	55.840	30.880	12.845	1.00	61.29	A
	ATOM	1355	CB	ALA A 241	57.979	28.704	14.246	1.00	65.23	A
	ATOM	1356	N	PHE A 242	54.984	29.236	14.113	1.00	56.72	A
	ATOM	1357	CA	PHE A 242	53.712	29.196	13.394	1.00	52.53	A
30	ATOM	1358	CB	PHE A 242	53.419	27.767	12.923	1.00	49.14	A
	ATOM	1359	CG	PHE A 242	52.040	27.590	12.354	1.00	47.38	A
	ATOM	1360	CD1	PHE A 242	51.731	28.067	11.085	1.00	47.69	A
	ATOM	1361	CD2	PHE A 242	51.038	26.975	13.102	1.00	45.45	A
	ATOM	1362	CE1	PHE A 242	50.445	27.937	10.565	1.00	46.75	A
35	ATOM	1363	CE2	PHE A 242	49.751	26.840	12.594	1.00	45.41	A
	ATOM	1364	CZ	PHE A 242	49.453	27.323	11.322	1.00	46.55	A
	ATOM	1365	C	PHE A 242	52.534	29.688	14.229	1.00	50.08	A
	ATOM	1366	O	PHE A 242	52.502	29.505	15.444	1.00	49.86	A
	ATOM	1367	N	VAL A 243	51.566	30.305	13.557	1.00	47.67	A
40	ATOM	1368	CA	VAL A 243	50.355	30.809	14.200	1.00	46.21	A
	ATOM	1369	CB	VAL A 243	50.340	32.352	14.258	1.00	47.36	A
	ATOM	1370	CG1	VAL A 243	49.012	32.844	14.825	1.00	47.54	A
	ATOM	1371	CG2	VAL A 243	51.497	32.842	15.109	1.00	48.50	A
	ATOM	1372	C	VAL A 243	49.150	30.342	13.389	1.00	44.12	A
45	ATOM	1373	O	VAL A 243	48.956	30.765	12.247	1.00	44.46	A
	ATOM	1374	N	GLY A 244	48.348	29.467	13.985	1.00	40.48	A
	ATOM	1375	CA	GLY A 244	47.176	28.941	13.306	1.00	37.65	A
	ATOM	1376	C	GLY A 244	46.101	29.960	12.964	1.00	35.39	A
	ATOM	1377	O	GLY A 244	46.313	31.168	13.065	1.00	35.92	A
50	ATOM	1378	N	THR A 245	44.936	29.463	12.560	1.00	33.30	A
	ATOM	1379	CA	THR A 245	43.813	30.312	12.184	1.00	30.20	A
	ATOM	1380	CB	THR A 245	42.593	29.450	11.829	1.00	32.00	A
	ATOM	1381	OG1	THR A 245	42.952	28.573	10.755	1.00	32.81	A
	ATOM	1382	CG2	THR A 245	41.419	30.319	11.390	1.00	28.34	A
55	ATOM	1383	C	THR A 245	43.476	31.296	13.296	1.00	27.96	A
	ATOM	1384	O	THR A 245	43.212	30.907	14.434	1.00	25.46	A
	ATOM	1385	N	ALA A 246	43.486	32.576	12.938	1.00	25.22	A
	ATOM	1386	CA	ALA A 246	43.247	33.675	13.867	1.00	23.27	A
	ATOM	1387	CB	ALA A 246	42.956	34.955	13.082	1.00	22.94	A

	ATOM	1388	C	ALA A 246	42.178	33.475	14.934	1.00	21.27	A
	ATOM	1389	O	ALA A 246	42.431	33.705	16.114	1.00	20.93	A
	ATOM	1390	N	GLN A 247	40.988	33.047	14.536	1.00	19.67	A
	ATOM	1391	CA	GLN A 247	39.911	32.886	15.504	1.00	20.17	A
5	ATOM	1392	CB	GLN A 247	38.608	32.535	14.779	1.00	21.89	A
	ATOM	1393	CG	GLN A 247	38.522	33.076	13.355	1.00	26.18	A
	ATOM	1394	CD	GLN A 247	37.220	33.794	13.064	1.00	27.30	A
	ATOM	1395	OE1	GLN A 247	36.172	33.447	13.605	1.00	30.13	A
	ATOM	1396	NE2	GLN A 247	37.278	34.792	12.189	1.00	28.70	A
10	ATOM	1397	C	GLN A 247	40.181	31.849	16.595	1.00	19.43	A
	ATOM	1398	O	GLN A 247	39.546	31.883	17.648	1.00	18.93	A
	ATOM	1399	N	TYR A 248	41.132	30.948	16.359	1.00	18.60	A
	ATOM	1400	CA	TYR A 248	41.441	29.896	17.329	1.00	19.20	A
	ATOM	1401	CB	TYR A 248	41.333	28.529	16.642	1.00	17.53	A
15	ATOM	1402	CG	TYR A 248	40.013	28.362	15.927	1.00	19.32	A
	ATOM	1403	CD1	TYR A 248	38.859	28.010	16.625	1.00	17.69	A
	ATOM	1404	CE1	TYR A 248	37.617	27.976	15.990	1.00	18.18	A
	ATOM	1405	CD2	TYR A 248	39.897	28.664	14.569	1.00	16.87	A
	ATOM	1406	CE2	TYR A 248	38.665	28.635	13.924	1.00	19.17	A
20	ATOM	1407	CZ	TYR A 248	37.527	28.295	14.643	1.00	19.46	A
	ATOM	1408	OH	TYR A 248	36.299	28.311	14.023	1.00	18.98	A
	ATOM	1409	C	TYR A 248	42.810	30.039	17.993	1.00	20.42	A
	ATOM	1410	O	TYR A 248	43.208	29.191	18.792	1.00	19.19	A
	ATOM	1411	N	VAL A 249	43.523	31.114	17.673	1.00	20.20	A
25	ATOM	1412	CA	VAL A 249	44.841	31.343	18.251	1.00	20.91	A
	ATOM	1413	CB	VAL A 249	45.542	32.532	17.570	1.00	21.18	A
	ATOM	1414	CG1	VAL A 249	46.821	32.896	18.317	1.00	22.45	A
	ATOM	1415	CG2	VAL A 249	45.862	32.170	16.139	1.00	24.01	A
	ATOM	1416	C	VAL A 249	44.764	31.606	19.750	1.00	21.52	A
30	ATOM	1417	O	VAL A 249	43.915	32.368	20.216	1.00	22.72	A
	ATOM	1418	N	SER A 250	45.654	30.965	20.503	1.00	20.70	A
	ATOM	1419	CA	SER A 250	45.697	31.133	21.951	1.00	21.65	A
	ATOM	1420	CB	SER A 250	46.370	29.919	22.613	1.00	22.02	A
	ATOM	1421	OG	SER A 250	47.692	29.725	22.132	1.00	22.12	A
35	ATOM	1422	C	SER A 250	46.476	32.402	22.280	1.00	22.13	A
	ATOM	1423	O	SER A 250	47.332	32.828	21.511	1.00	22.77	A
	ATOM	1424	N	PRO A 251	46.180	33.029	23.425	1.00	22.23	A
	ATOM	1425	CD	PRO A 251	45.163	32.684	24.433	1.00	22.97	A
	ATOM	1426	CA	PRO A 251	46.893	34.254	23.800	1.00	22.52	A
40	ATOM	1427	CB	PRO A 251	46.233	34.650	25.127	1.00	23.06	A
	ATOM	1428	CG	PRO A 251	45.726	33.329	25.676	1.00	22.55	A
	ATOM	1429	C	PRO A 251	48.414	34.115	23.907	1.00	22.15	A
	ATOM	1430	O	PRO A 251	49.143	35.047	23.563	1.00	22.62	A
	ATOM	1431	N	GLU A 252	48.901	32.966	24.367	1.00	20.69	A
45	ATOM	1432	CA	GLU A 252	50.347	32.772	24.500	1.00	21.40	A
	ATOM	1433	CB	GLU A 252	50.673	31.382	25.071	1.00	20.59	A
	ATOM	1434	CG	GLU A 252	49.993	30.232	24.352	1.00	21.91	A
	ATOM	1435	CD	GLU A 252	48.691	29.822	25.014	1.00	21.51	A
	ATOM	1436	OE1	GLU A 252	47.989	30.707	25.550	1.00	21.46	A
50	ATOM	1437	OE2	GLU A 252	48.367	28.613	24.993	1.00	20.23	A
	ATOM	1438	C	GLU A 252	51.071	32.970	23.167	1.00	22.99	A
	ATOM	1439	O	GLU A 252	52.191	33.480	23.136	1.00	23.17	A
	ATOM	1440	N	LEU A 253	50.441	32.576	22.064	1.00	23.00	A
	ATOM	1441	CA	LEU A 253	51.068	32.753	20.758	1.00	25.62	A
55	ATOM	1442	CB	LEU A 253	50.277	32.029	19.669	1.00	26.75	A
	ATOM	1443	CG	LEU A 253	50.743	30.620	19.296	1.00	31.87	A
	ATOM	1444	CD1	LEU A 253	50.433	29.651	20.422	1.00	31.81	A
	ATOM	1445	CD2	LEU A 253	50.044	30.179	18.015	1.00	31.86	A
	ATOM	1446	C	LEU A 253	51.201	34.228	20.371	1.00	26.94	A

	ATOM	1447	O	LEU A 253	52.107	34.601	19.626	1.00	27.09	A
	ATOM	1448	N	LEU A 254	50.297	35.059	20.877	1.00	25.83	A
	ATOM	1449	CA	LEU A 254	50.297	36.485	20.564	1.00	27.26	A
	ATOM	1450	CB	LEU A 254	48.858	37.006	20.564	1.00	25.84	A
5	ATOM	1451	CG	LEU A 254	47.882	36.290	19.621	1.00	24.69	A
	ATOM	1452	CD1	LEU A 254	46.459	36.724	19.932	1.00	23.64	A
	ATOM	1453	CD2	LEU A 254	48.236	36.597	18.177	1.00	24.24	A
	ATOM	1454	C	LEU A 254	51.134	37.314	21.537	1.00	30.62	A
	ATOM	1455	O	LEU A 254	51.633	38.383	21.187	1.00	32.35	A
10	ATOM	1456	N	THR A 255	51.292	36.821	22.758	1.00	32.47	A
	ATOM	1457	CA	THR A 255	52.056	37.547	23.759	1.00	36.70	A
	ATOM	1458	CB	THR A 255	51.368	37.478	25.127	1.00	34.51	A
	ATOM	1459	OG1	THR A 255	51.188	36.106	25.494	1.00	35.49	A
	ATOM	1460	CG2	THR A 255	50.013	38.166	25.077	1.00	33.40	A
15	ATOM	1461	C	THR A 255	53.477	37.035	23.910	1.00	40.09	A
	ATOM	1462	O	THR A 255	54.430	37.793	23.772	1.00	43.69	A
	ATOM	1463	N	GLU A 256	53.617	35.747	24.189	1.00	44.77	A
	ATOM	1464	CA	GLU A 256	54.932	35.144	24.382	1.00	49.15	A
	ATOM	1465	CB	GLU A 256	54.866	34.143	25.534	1.00	51.24	A
20	ATOM	1466	CG	GLU A 256	54.514	34.786	26.862	1.00	56.03	A
	ATOM	1467	CD	GLU A 256	54.053	33.780	27.893	1.00	58.83	A
	ATOM	1468	OE1	GLU A 256	54.766	32.776	28.107	1.00	62.13	A
	ATOM	1469	OE2	GLU A 256	52.979	33.996	28.494	1.00	60.34	A
	ATOM	1470	C	GLU A 256	55.475	34.456	23.137	1.00	50.09	A
25	ATOM	1471	O	GLU A 256	56.616	33.995	23.127	1.00	50.42	A
	ATOM	1472	N	LYS A 257	54.658	34.389	22.090	1.00	51.21	A
	ATOM	1473	CA	LYS A 257	55.064	33.746	20.845	1.00	51.22	A
	ATOM	1474	CB	LYS A 257	56.244	34.502	20.227	1.00	53.28	A
	ATOM	1475	CG	LYS A 257	56.558	34.125	18.790	1.00	55.19	A
30	ATOM	1476	CD	LYS A 257	57.709	34.961	18.253	1.00	57.52	A
	ATOM	1477	CE	LYS A 257	57.952	34.694	16.777	1.00	58.52	A
	ATOM	1478	NZ	LYS A 257	58.290	33.268	16.515	1.00	60.88	A
	ATOM	1479	C	LYS A 257	55.467	32.302	21.138	1.00	50.74	A
	ATOM	1480	O	LYS A 257	56.432	31.790	20.577	1.00	52.26	A
35	ATOM	1481	N	SER A 258	54.721	31.654	22.027	1.00	48.07	A
	ATOM	1482	CA	SER A 258	54.999	30.273	22.402	1.00	46.87	A
	ATOM	1483	CB	SER A 258	55.590	30.229	23.812	1.00	48.88	A
	ATOM	1484	OG	SER A 258	54.741	30.892	24.734	1.00	53.14	A
	ATOM	1485	C	SER A 258	53.735	29.415	22.342	1.00	44.07	A
40	ATOM	1486	O	SER A 258	52.617	29.932	22.417	1.00	44.17	A
	ATOM	1487	N	ALA A 259	53.917	28.105	22.204	1.00	38.30	A
	ATOM	1488	CA	ALA A 259	52.793	27.180	22.127	1.00	34.73	A
	ATOM	1489	CB	ALA A 259	52.551	26.779	20.684	1.00	34.16	A
	ATOM	1490	C	ALA A 259	53.042	25.940	22.977	1.00	32.34	A
45	ATOM	1491	O	ALA A 259	54.172	25.459	23.086	1.00	31.81	A
	ATOM	1492	N	CYS A 260	51.975	25.428	23.579	1.00	28.58	A
	ATOM	1493	CA	CYS A 260	52.056	24.244	24.425	1.00	26.27	A
	ATOM	1494	CB	CYS A 260	52.183	24.654	25.892	1.00	26.53	A
	ATOM	1495	SG	CYS A 260	50.846	25.739	26.469	1.00	32.91	A
50	ATOM	1496	C	CYS A 260	50.786	23.435	24.224	1.00	22.83	A
	ATOM	1497	O	CYS A 260	49.892	23.856	23.495	1.00	22.14	A
	ATOM	1498	N	LYS A 261	50.706	22.277	24.868	1.00	20.02	A
	ATOM	1499	CA	LYS A 261	49.526	21.434	24.744	1.00	20.65	A
	ATOM	1500	CB	LYS A 261	49.619	20.243	25.696	1.00	23.28	A
55	ATOM	1501	CG	LYS A 261	50.716	19.253	25.347	1.00	27.44	A
	ATOM	1502	CD	LYS A 261	50.732	18.117	26.350	1.00	29.98	A
	ATOM	1503	CE	LYS A 261	51.922	17.203	26.134	1.00	32.34	A
	ATOM	1504	NZ	LYS A 261	51.940	16.121	27.153	1.00	33.28	A
	ATOM	1505	C	LYS A 261	48.268	22.229	25.062	1.00	19.20	A

	ATOM	1506	O	LYS A 261	47.253	22.092	24.387	1.00	18.08	A
	ATOM	1507	N	SER A 262	48.358	23.068	26.089	1.00	16.92	A
	ATOM	1508	CA	SER A 262	47.235	23.883	26.534	1.00	18.13	A
	ATOM	1509	CB	SER A 262	47.644	24.698	27.770	1.00	18.27	A
5	ATOM	1510	OG	SER A 262	46.517	25.258	28.421	1.00	22.53	A
	ATOM	1511	C	SER A 262	46.736	24.811	25.424	1.00	16.77	A
	ATOM	1512	O	SER A 262	45.591	25.254	25.450	1.00	15.69	A
	ATOM	1513	N	SER A 263	47.595	25.118	24.456	1.00	16.44	A
	ATOM	1514	CA	SER A 263	47.175	25.970	23.347	1.00	16.89	A
10	ATOM	1515	CB	SER A 263	48.340	26.228	22.382	1.00	18.49	A
	ATOM	1516	OG	SER A 263	49.402	26.909	23.031	1.00	22.10	A
	ATOM	1517	C	SER A 263	46.040	25.257	22.612	1.00	17.79	A
	ATOM	1518	O	SER A 263	45.099	25.898	22.148	1.00	17.57	A
	ATOM	1519	N	ASP A 264	46.119	23.928	22.517	1.00	16.30	A
15	ATOM	1520	CA	ASP A 264	45.069	23.166	21.836	1.00	16.72	A
	ATOM	1521	CB	ASP A 264	45.483	21.704	21.620	1.00	15.92	A
	ATOM	1522	CG	ASP A 264	46.544	21.539	20.548	1.00	17.93	A
	ATOM	1523	OD1	ASP A 264	46.642	22.412	19.661	1.00	16.78	A
	ATOM	1524	OD2	ASP A 264	47.265	20.515	20.579	1.00	16.64	A
20	ATOM	1525	C	ASP A 264	43.773	23.194	22.646	1.00	17.67	A
	ATOM	1526	O	ASP A 264	42.681	23.197	22.076	1.00	18.27	A
	ATOM	1527	N	LEU A 265	43.898	23.205	23.974	1.00	15.49	A
	ATOM	1528	CA	LEU A 265	42.730	23.232	24.849	1.00	14.75	A
	ATOM	1529	CB	LEU A 265	43.147	23.038	26.313	1.00	11.38	A
25	ATOM	1530	CG	LEU A 265	43.711	21.641	26.621	1.00	14.04	A
	ATOM	1531	CD1	LEU A 265	44.249	21.579	28.052	1.00	13.96	A
	ATOM	1532	CD2	LEU A 265	42.619	20.603	26.416	1.00	11.62	A
	ATOM	1533	C	LEU A 265	41.999	24.557	24.675	1.00	15.13	A
	ATOM	1534	O	LEU A 265	40.777	24.620	24.785	1.00	16.75	A
30	ATOM	1535	N	TRP A 266	42.746	25.622	24.405	1.00	16.08	A
	ATOM	1536	CA	TRP A 266	42.118	26.918	24.184	1.00	16.96	A
	ATOM	1537	CB	TRP A 266	43.176	28.015	24.023	1.00	17.28	A
	ATOM	1538	CG	TRP A 266	42.618	29.326	23.521	1.00	20.54	A
	ATOM	1539	CD2	TRP A 266	42.313	30.490	24.301	1.00	20.07	A
35	ATOM	1540	CE2	TRP A 266	41.782	31.459	23.417	1.00	20.46	A
	ATOM	1541	CE3	TRP A 266	42.435	30.810	25.660	1.00	20.68	A
	ATOM	1542	CD1	TRP A 266	42.270	29.631	22.231	1.00	19.53	A
	ATOM	1543	NE1	TRP A 266	41.769	30.908	22.163	1.00	19.61	A
	ATOM	1544	CZ2	TRP A 266	41.372	32.727	23.850	1.00	20.90	A
40	ATOM	1545	CZ3	TRP A 266	42.026	32.073	26.091	1.00	19.45	A
	ATOM	1546	CH2	TRP A 266	41.501	33.015	25.185	1.00	20.71	A
	ATOM	1547	C	TRP A 266	41.284	26.795	22.913	1.00	17.22	A
	ATOM	1548	O	TRP A 266	40.139	27.240	22.863	1.00	18.03	A
	ATOM	1549	N	ALA A 267	41.863	26.181	21.886	1.00	17.50	A
45	ATOM	1550	CA	ALA A 267	41.155	25.990	20.626	1.00	16.16	A
	ATOM	1551	CB	ALA A 267	42.050	25.290	19.621	1.00	14.28	A
	ATOM	1552	C	ALA A 267	39.901	25.159	20.891	1.00	16.28	A
	ATOM	1553	O	ALA A 267	38.835	25.436	20.346	1.00	16.46	A
	ATOM	1554	N	LEU A 268	40.031	24.144	21.739	1.00	16.57	A
50	ATOM	1555	CA	LEU A 268	38.890	23.299	22.084	1.00	17.03	A
	ATOM	1556	CB	LEU A 268	39.292	22.260	23.139	1.00	15.35	A
	ATOM	1557	CG	LEU A 268	38.158	21.429	23.754	1.00	19.00	A
	ATOM	1558	CD1	LEU A 268	37.505	20.578	22.678	1.00	16.17	A
	ATOM	1559	CD2	LEU A 268	38.718	20.537	24.881	1.00	17.49	A
55	ATOM	1560	C	LEU A 268	37.766	24.179	22.628	1.00	15.72	A
	ATOM	1561	O	LEU A 268	36.603	24.031	22.247	1.00	15.28	A
	ATOM	1562	N	GLY A 269	38.119	25.099	23.520	1.00	14.34	A
	ATOM	1563	CA	GLY A 269	37.124	25.989	24.092	1.00	13.39	A
	ATOM	1564	C	GLY A 269	36.406	26.808	23.031	1.00	14.94	A

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      ATOM   1565   O    GLY A 269      35.193  27.014  23.114  1.00 14.76      A
      ATOM   1566   N    CYS A 270      37.146  27.279  22.030  1.00 13.86      A
      ATOM   1567   CA   CYS A 270      36.539  28.061  20.958  1.00 16.80      A
      ATOM   1568   CB   CYS A 270      37.611  28.634  20.023  1.00 15.97      A
   5  ATOM   1569   SG   CYS A 270      38.751  29.810  20.780  1.00 20.48      A
      ATOM   1570   C    CYS A 270      35.598  27.175  20.140  1.00 17.50      A
      ATOM   1571   O    CYS A 270      34.516  27.604  19.741  1.00 18.38      A
      ATOM   1572   N    ILE A 271      36.022  25.939  19.887  1.00 16.99      A
      ATOM   1573   CA   ILE A 271      35.221  25.004  19.104  1.00 16.66      A
  10  ATOM   1574   CB   ILE A 271      36.038  23.741  18.778  1.00 16.53      A
      ATOM   1575   CG2  ILE A 271      35.155  22.694  18.102  1.00 16.34      A
      ATOM   1576   CG1  ILE A 271      37.222  24.129  17.882  1.00 15.59      A
      ATOM   1577   CD1  ILE A 271      38.239  23.018  17.690  1.00 14.88      A
      ATOM   1578   C    ILE A 271      33.920  24.626  19.809  1.00 16.74      A
  15  ATOM   1579   O    ILE A 271      32.865  24.576  19.179  1.00 17.12      A
      ATOM   1580   N    ILE A 272      33.990  24.357  21.111  1.00 16.13      A
      ATOM   1581   CA   ILE A 272      32.785  24.021  21.862  1.00 18.30      A
      ATOM   1582   CB   ILE A 272      33.097  23.747  23.346  1.00 17.77      A
      ATOM   1583   CG2  ILE A 272      31.796  23.666  24.152  1.00 17.96      A
  20  ATOM   1584   CG1  ILE A 272      33.877  22.437  23.481  1.00 19.55      A
      ATOM   1585   CD1  ILE A 272      34.446  22.217  24.886  1.00 18.64      A
      ATOM   1586   C    ILE A 272      31.824  25.207  21.776  1.00 19.51      A
      ATOM   1587   O    ILE A 272      30.624  25.037  21.554  1.00 20.44      A
      ATOM   1588   N    TYR A 273      32.362  26.409  21.947  1.00 18.52      A
  25  ATOM   1589   CA   TYR A 273      31.553  27.615  21.881  1.00 20.48      A
      ATOM   1590   CB   TYR A 273      32.418  28.847  22.162  1.00 18.98      A
      ATOM   1591   CG   TYR A 273      31.663  30.161  22.125  1.00 20.26      A
      ATOM   1592   CD1  TYR A 273      31.229  30.709  20.916  1.00 20.67      A
      ATOM   1593   CE1  TYR A 273      30.536  31.917  20.880  1.00 20.98      A
  30  ATOM   1594   CD2  TYR A 273      31.383  30.857  23.302  1.00 19.82      A
      ATOM   1595   CE2  TYR A 273      30.691  32.062  23.280  1.00 20.62      A
      ATOM   1596   CZ   TYR A 273      30.271  32.587  22.067  1.00 21.15      A
      ATOM   1597   OH   TYR A 273      29.588  33.776  22.049  1.00 21.86      A
      ATOM   1598   C    TYR A 273      30.902  27.730  20.507  1.00 21.54      A
  35  ATOM   1599   O    TYR A 273      29.719  28.049  20.401  1.00 22.80      A
      ATOM   1600   N    GLN A 274      31.676  27.454  19.461  1.00 21.05      A
      ATOM   1601   CA   GLN A 274      31.176  27.538  18.095  1.00 21.48      A
      ATOM   1602   CB   GLN A 274      32.323  27.341  17.097  1.00 21.41      A
      ATOM   1603   CG   GLN A 274      31.934  27.596  15.645  1.00 23.15      A
  40  ATOM   1604   CD   GLN A 274      33.131  27.588  14.706  1.00 24.80      A
      ATOM   1605   OE1  GLN A 274      34.276  27.446  15.139  1.00 22.51      A
      ATOM   1606   NE2  GLN A 274      32.870  27.750  13.413  1.00 22.96      A
      ATOM   1607   C    GLN A 274      30.076  26.517  17.828  1.00 21.51      A
      ATOM   1608   O    GLN A 274      29.123  26.806  17.108  1.00 20.50      A
  45  ATOM   1609   N    LEU A 275      30.207  25.324  18.403  1.00 21.44      A
      ATOM   1610   CA   LEU A 275      29.196  24.282  18.208  1.00 20.95      A
      ATOM   1611   CB   LEU A 275      29.645  22.958  18.846  1.00 19.11      A
      ATOM   1612   CG   LEU A 275      30.775  22.182  18.159  1.00 21.43      A
      ATOM   1613   CD1  LEU A 275      31.118  20.936  18.963  1.00 17.64      A
  50  ATOM   1614   CD2  LEU A 275      30.342  21.795  16.754  1.00 20.34      A
      ATOM   1615   C    LEU A 275      27.860  24.697  18.815  1.00 21.32      A
      ATOM   1616   O    LEU A 275      26.802  24.461  18.229  1.00 19.75      A
      ATOM   1617   N    VAL A 276      27.921  25.322  19.987  1.00 19.10      A
      ATOM   1618   CA   VAL A 276      26.724  25.750  20.702  1.00 22.47      A
  55  ATOM   1619   CB   VAL A 276      27.011  25.882  22.217  1.00 20.87      A
      ATOM   1620   CG1  VAL A 276      25.742  26.291  22.957  1.00 19.68      A
      ATOM   1621   CG2  VAL A 276      27.550  24.558  22.766  1.00 19.43      A
      ATOM   1622   C    VAL A 276      26.127  27.075  20.211  1.00 23.89      A
      ATOM   1623   O    VAL A 276      24.910  27.199  20.070  1.00 24.90      A
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	ATOM	1624	N	ALA	A	277	26.983	28.062	19.965	1.00 24.56	A
	ATOM	1625	CA	ALA	A	277	26.533	29.374	19.518	1.00 24.72	A
	ATOM	1626	CB	ALA	A	277	27.504	30.444	19.999	1.00 24.36	A
	ATOM	1627	C	ALA	A	277	26.378	29.458	18.005	1.00 25.76	A
5	ATOM	1628	O	ALA	A	277	25.577	30.242	17.502	1.00 26.39	A
	ATOM	1629	N	GLY	A	278	27.142	28.651	17.280	1.00 25.13	A
	ATOM	1630	CA	GLY	A	278	27.062	28.673	15.834	1.00 25.58	A
	ATOM	1631	C	GLY	A	278	28.163	29.524	15.231	1.00 26.50	A
	ATOM	1632	O	GLY	A	278	28.374	29.510	14.015	1.00 28.17	A
10	ATOM	1633	N	LEU	A	279	28.866	30.262	16.086	1.00 24.44	A
	ATOM	1634	CA	LEU	A	279	29.962	31.130	15.656	1.00 25.21	A
	ATOM	1635	CB	LEU	A	279	29.468	32.575	15.500	1.00 25.78	A
	ATOM	1636	CG	LEU	A	279	28.364	32.899	14.490	1.00 28.17	A
	ATOM	1637	CD1	LEU	A	279	27.922	34.344	14.684	1.00 26.60	A
15	ATOM	1638	CD2	LEU	A	279	28.862	32.670	13.071	1.00 26.52	A
	ATOM	1639	C	LEU	A	279	31.093	31.116	16.687	1.00 23.47	A
	ATOM	1640	O	LEU	A	279	30.848	30.994	17.882	1.00 24.44	A
	ATOM	1641	N	PRO	A	280	32.349	31.239	16.236	1.00 23.35	A
	ATOM	1642	CD	PRO	A	280	32.831	31.404	14.855	1.00 22.26	A
20	ATOM	1643	CA	PRO	A	280	33.464	31.239	17.189	1.00 23.81	A
	ATOM	1644	CB	PRO	A	280	34.692	31.293	16.282	1.00 23.24	A
	ATOM	1645	CG	PRO	A	280	34.189	32.020	15.073	1.00 24.89	A
	ATOM	1646	C	PRO	A	280	33.353	32.444	18.137	1.00 22.69	A
	ATOM	1647	O	PRO	A	280	32.750	33.457	17.788	1.00 22.11	A
25	ATOM	1648	N	PRO	A	281	33.939	32.344	19.345	1.00 23.06	A
	ATOM	1649	CD	PRO	A	281	34.810	31.223	19.734	1.00 21.37	A
	ATOM	1650	CA	PRO	A	281	33.935	33.375	20.395	1.00 23.67	A
	ATOM	1651	CB	PRO	A	281	34.781	32.751	21.509	1.00 24.89	A
	ATOM	1652	CG	PRO	A	281	34.749	31.287	21.219	1.00 25.24	A
30	ATOM	1653	C	PRO	A	281	34.481	34.752	20.017	1.00 23.75	A
	ATOM	1654	O	PRO	A	281	33.869	35.781	20.317	1.00 21.02	A
	ATOM	1655	N	PHE	A	282	35.644	34.763	19.379	1.00 22.17	A
	ATOM	1656	CA	PHE	A	282	36.293	36.007	18.998	1.00 23.16	A
	ATOM	1657	CB	PHE	A	282	37.765	35.943	19.406	1.00 21.01	A
35	ATOM	1658	CG	PHE	A	282	37.975	35.482	20.822	1.00 22.66	A
	ATOM	1659	CD1	PHE	A	282	37.806	36.361	21.888	1.00 20.06	A
	ATOM	1660	CD2	PHE	A	282	38.291	34.151	21.093	1.00 20.72	A
	ATOM	1661	CE1	PHE	A	282	37.947	35.921	23.206	1.00 22.66	A
	ATOM	1662	CE2	PHE	A	282	38.433	33.702	22.405	1.00 20.97	A
40	ATOM	1663	CZ	PHE	A	282	38.261	34.590	23.466	1.00 19.58	A
	ATOM	1664	C	PHE	A	282	36.169	36.263	17.503	1.00 24.39	A
	ATOM	1665	O	PHE	A	282	36.802	35.585	16.694	1.00 25.80	A
	ATOM	1666	N	ARG	A	283	35.355	37.248	17.142	1.00 24.99	A
	ATOM	1667	CA	ARG	A	283	35.141	37.594	15.741	1.00 26.33	A
45	ATOM	1668	CB	ARG	A	283	33.721	37.209	15.316	1.00 28.91	A
	ATOM	1669	CG	ARG	A	283	33.293	35.808	15.724	1.00 30.27	A
	ATOM	1670	CD	ARG	A	283	31.904	35.493	15.188	1.00 33.36	A
	ATOM	1671	NE	ARG	A	283	30.890	36.392	15.733	1.00 32.76	A
	ATOM	1672	CZ	ARG	A	283	30.372	36.287	16.952	1.00 34.79	A
50	ATOM	1673	NH1	ARG	A	283	30.767	35.317	17.768	1.00 35.77	A
	ATOM	1674	NH2	ARG	A	283	29.458	37.156	17.359	1.00 36.12	A
	ATOM	1675	C	ARG	A	283	35.328	39.096	15.544	1.00 26.47	A
	ATOM	1676	O	ARG	A	283	35.029	39.888	16.438	1.00 26.28	A
	ATOM	1677	N	ALA	A	284	35.818	39.486	14.373	1.00 26.70	A
55	ATOM	1678	CA	ALA	A	284	36.033	40.899	14.079	1.00 27.84	A
	ATOM	1679	CB	ALA	A	284	37.188	41.442	14.914	1.00 26.24	A
	ATOM	1680	C	ALA	A	284	36.327	41.077	12.602	1.00 28.35	A
	ATOM	1681	O	ALA	A	284	36.560	40.101	11.891	1.00 29.91	A
	ATOM	1682	N	GLY	A	285	36.332	42.329	12.153	1.00 29.29	A

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       ATOM   1683  CA   GLY A 285      36.577  42.631  10.753  1.00 29.52        A
       ATOM   1684  C    GLY A 285      37.893  42.156  10.168  1.00 30.12        A
       ATOM   1685  O    GLY A 285      37.974  41.862   8.976  1.00 30.60        A
       ATOM   1686  N    ASN A 286      38.939  42.097  10.983  1.00 28.49        A
   5   ATOM   1687  CA   ASN A 286      40.231  41.644  10.489  1.00 26.71        A
       ATOM   1688  CB   ASN A 286      41.050  42.825   9.945  1.00 26.11        A
       ATOM   1689  CG   ASN A 286      41.310  43.900  10.990  1.00 27.83        A
       ATOM   1690  OD1  ASN A 286      41.877  43.631  12.049  1.00 27.84        A
       ATOM   1691  ND2  ASN A 286      40.908  45.131  10.685  1.00 25.95        A
  10   ATOM   1692  C    ASN A 286      40.997  40.924  11.584  1.00 26.03        A
       ATOM   1693  O    ASN A 286      40.540  40.851  12.723  1.00 25.66        A
       ATOM   1694  N    GLU A 287      42.162  40.391  11.239  1.00 24.81        A
       ATOM   1695  CA   GLU A 287      42.965  39.662  12.206  1.00 27.59        A
       ATOM   1696  CB   GLU A 287      44.145  38.985  11.510  1.00 30.17        A
  15   ATOM   1697  CG   GLU A 287      43.776  37.632  10.931  1.00 38.21        A
       ATOM   1698  CD   GLU A 287      44.900  36.998  10.140  1.00 41.86        A
       ATOM   1699  OE1  GLU A 287      46.061  37.036  10.608  1.00 43.08        A
       ATOM   1700  OE2  GLU A 287      44.612  36.449   9.052  1.00 45.22        A
       ATOM   1701  C    GLU A 287      43.459  40.485  13.383  1.00 25.05        A
  20   ATOM   1702  O    GLU A 287      43.382  40.030  14.521  1.00 26.41        A
       ATOM   1703  N    TYR A 288      43.966  41.685  13.122  1.00 23.04        A
       ATOM   1704  CA   TYR A 288      44.460  42.528  14.205  1.00 22.34        A
       ATOM   1705  CB   TYR A 288      44.867  43.913  13.691  1.00 21.07        A
       ATOM   1706  CG   TYR A 288      45.275  44.858  14.805  1.00 21.07        A
  25   ATOM   1707  CD1  TYR A 288      46.533  44.762  15.405  1.00 21.23        A
       ATOM   1708  CE1  TYR A 288      46.891  45.588  16.475  1.00 20.43        A
       ATOM   1709  CD2  TYR A 288      44.380  45.809  15.302  1.00 22.32        A
       ATOM   1710  CE2  TYR A 288      44.725  46.637  16.373  1.00 23.28        A
       ATOM   1711  CZ   TYR A 288      45.981  46.518  16.953  1.00 22.96        A
  30   ATOM   1712  OH   TYR A 288      46.316  47.313  18.024  1.00 23.18        A
       ATOM   1713  C    TYR A 288      43.402  42.698  15.288  1.00 21.38        A
       ATOM   1714  O    TYR A 288      43.710  42.616  16.473  1.00 22.09        A
       ATOM   1715  N    LEU A 289      42.159  42.939  14.874  1.00 21.88        A
       ATOM   1716  CA   LEU A 289      41.055  43.130  15.811  1.00 21.98        A
  35   ATOM   1717  CB   LEU A 289      39.821  43.673  15.078  1.00 22.90        A
       ATOM   1718  CG   LEU A 289      39.896  45.130  14.601  1.00 26.52        A
       ATOM   1719  CD1  LEU A 289      38.706  45.436  13.696  1.00 26.55        A
       ATOM   1720  CD2  LEU A 289      39.914  46.071  15.807  1.00 23.13        A
       ATOM   1721  C    LEU A 289      40.686  41.849  16.560  1.00 21.24        A
  40   ATOM   1722  O    LEU A 289      40.256  41.897  17.715  1.00 20.72        A
       ATOM   1723  N    ILE A 290      40.843  40.708  15.900  1.00 19.62        A
       ATOM   1724  CA   ILE A 290      40.538  39.433  16.533  1.00 18.54        A
       ATOM   1725  CB   ILE A 290      40.560  38.281  15.509  1.00 18.52        A
       ATOM   1726  CG2  ILE A 290      40.503  36.934  16.234  1.00 17.63        A
  45   ATOM   1727  CG1  ILE A 290      39.378  38.429  14.545  1.00 18.88        A
       ATOM   1728  CD1  ILE A 290      39.421  37.483  13.357  1.00 19.81        A
       ATOM   1729  C    ILE A 290      41.578  39.167  17.618  1.00 19.09        A
       ATOM   1730  O    ILE A 290      41.236  38.788  18.737  1.00 18.20        A
       ATOM   1731  N    PHE A 291      42.849  39.376  17.286  1.00 18.76        A
  50   ATOM   1732  CA   PHE A 291      43.925  39.156  18.247  1.00 20.75        A
       ATOM   1733  CB   PHE A 291      45.286  39.434  17.606  1.00 20.71        A
       ATOM   1734  CG   PHE A 291      45.644  38.480  16.503  1.00 22.92        A
       ATOM   1735  CD1  PHE A 291      45.065  37.214  16.443  1.00 22.98        A
       ATOM   1736  CD2  PHE A 291      46.588  38.830  15.543  1.00 22.91        A
  55   ATOM   1737  CE1  PHE A 291      45.423  36.310  15.440  1.00 24.51        A
       ATOM   1738  CE2  PHE A 291      46.954  37.931  14.535  1.00 25.54        A
       ATOM   1739  CZ   PHE A 291      46.370  36.670  14.485  1.00 23.29        A
       ATOM   1740  C    PHE A 291      43.739  40.061  19.451  1.00 21.72        A
       ATOM   1741  O    PHE A 291      43.992  39.671  20.593  1.00 22.32        A
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	ATOM	1742	N	GLN	A	292	43.284	41.275	19.178	1.00	23.27		A
	ATOM	1743	CA	GLN	A	292	43.055	42.264	20.216	1.00	24.01		A
	ATOM	1744	CB	GLN	A	292	42.574	43.559	19.562	1.00	25.77		A
	ATOM	1745	CG	GLN	A	292	42.577	44.773	20.447	1.00	28.45		A
5	ATOM	1746	CD	GLN	A	292	42.469	46.057	19.638	1.00	29.83		A
	ATOM	1747	OE1	GLN	A	292	41.520	46.244	18.872	1.00	27.16		A
	ATOM	1748	NE2	GLN	A	292	43.449	46.944	19.799	1.00	27.61		A
	ATOM	1749	C	GLN	A	292	42.018	41.733	21.204	1.00	22.97		A
	ATOM	1750	O	GLN	A	292	42.200	41.832	22.415	1.00	21.64		A
10	ATOM	1751	N	LYS	A	293	40.937	41.154	20.687	1.00	21.82		A
	ATOM	1752	CA	LYS	A	293	39.895	40.612	21.558	1.00	22.18		A
	ATOM	1753	CB	LYS	A	293	38.664	40.223	20.740	1.00	22.69		A
	ATOM	1754	CG	LYS	A	293	37.919	41.407	20.153	1.00	25.78		A
	ATOM	1755	CD	LYS	A	293	36.651	40.961	19.429	1.00	27.88		A
15	ATOM	1756	CE	LYS	A	293	35.857	42.161	18.926	1.00	30.85		A
	ATOM	1757	NZ	LYS	A	293	34.612	41.750	18.214	1.00	32.98		A
	ATOM	1758	C	LYS	A	293	40.398	39.398	22.343	1.00	21.20		A
	ATOM	1759	O	LYS	A	293	40.041	39.204	23.509	1.00	22.01		A
	ATOM	1760	N	ILE	A	294	41.226	38.583	21.702	1.00	19.91		A
20	ATOM	1761	CA	ILE	A	294	41.774	37.394	22.347	1.00	20.28		A
	ATOM	1762	CB	ILE	A	294	42.631	36.575	21.349	1.00	18.98		A
	ATOM	1763	CG2	ILE	A	294	43.481	35.550	22.098	1.00	17.70		A
	ATOM	1764	CG1	ILE	A	294	41.716	35.897	20.318	1.00	17.93		A
	ATOM	1765	CD1	ILE	A	294	42.467	35.237	19.178	1.00	16.21		A
25	ATOM	1766	C	ILE	A	294	42.618	37.727	23.587	1.00	21.94		A
	ATOM	1767	O	ILE	A	294	42.366	37.199	24.673	1.00	20.86		A
	ATOM	1768	N	ILE	A	295	43.610	38.600	23.439	1.00	21.88		A
	ATOM	1769	CA	ILE	A	295	44.461	38.934	24.582	1.00	24.25		A
	ATOM	1770	CB	ILE	A	295	45.668	39.805	24.175	1.00	23.93		A
30	ATOM	1771	CG2	ILE	A	295	46.514	39.066	23.140	1.00	24.61		A
	ATOM	1772	CG1	ILE	A	295	45.189	41.151	23.637	1.00	24.58		A
	ATOM	1773	CD1	ILE	A	295	46.317	42.149	23.433	1.00	26.69		A
	ATOM	1774	C	ILE	A	295	43.720	39.636	25.717	1.00	24.80		A
	ATOM	1775	O	ILE	A	295	44.214	39.687	26.842	1.00	24.76		A
35	ATOM	1776	N	LYS	A	296	42.539	40.173	25.425	1.00	25.33		A
	ATOM	1777	CA	LYS	A	296	41.743	40.853	26.444	1.00	26.80		A
	ATOM	1778	CB	LYS	A	296	41.178	42.170	25.894	1.00	27.39		A
	ATOM	1779	CG	LYS	A	296	42.240	43.141	25.413	1.00	31.79		A
	ATOM	1780	CD	LYS	A	296	41.634	44.410	24.826	1.00	35.56		A
40	ATOM	1781	CE	LYS	A	296	41.009	45.283	25.900	1.00	39.29		A
	ATOM	1782	NZ	LYS	A	296	40.564	46.603	25.357	1.00	41.72		A
	ATOM	1783	C	LYS	A	296	40.593	39.958	26.893	1.00	25.50		A
	ATOM	1784	O	LYS	A	296	39.770	40.361	27.713	1.00	24.02		A
	ATOM	1785	N	LEU	A	297	40.550	38.742	26.349	1.00	25.67		A
45	ATOM	1786	CA	LEU	A	297	39.500	37.777	26.666	1.00	25.16		A
	ATOM	1787	CB	LEU	A	297	39.632	37.285	28.111	1.00	24.80		A
	ATOM	1788	CG	LEU	A	297	38.766	36.068	28.460	1.00	26.43		A
	ATOM	1789	CD1	LEU	A	297	39.238	34.852	27.646	1.00	26.70		A
	ATOM	1790	CD2	LEU	A	297	38.856	35.777	29.951	1.00	24.84		A
50	ATOM	1791	C	LEU	A	297	38.151	38.459	26.467	1.00	25.11		A
	ATOM	1792	O	LEU	A	297	37.261	38.378	27.309	1.00	25.28		A
	ATOM	1793	N	GLU	A	298	38.007	39.127	25.331	1.00	24.98		A
	ATOM	1794	CA	GLU	A	298	36.786	39.847	25.023	1.00	25.31		A
	ATOM	1795	CB	GLU	A	298	37.143	41.139	24.291	1.00	27.13		A
55	ATOM	1796	CG	GLU	A	298	35.991	42.092	24.108	1.00	31.28		A
	ATOM	1797	CD	GLU	A	298	36.419	43.362	23.410	1.00	34.40		A
	ATOM	1798	OE1	GLU	A	298	37.348	44.027	23.918	1.00	35.90		A
	ATOM	1799	OE2	GLU	A	298	35.832	43.693	22.359	1.00	36.16		A
	ATOM	1800	C	GLU	A	298	35.766	39.057	24.207	1.00	23.79		A

	ATOM	1801	O	GLU A 298	35.832	39.017	22.979	1.00	24.35	A
	ATOM	1802	N	TYR A 299	34.825	38.427	24.902	1.00	23.45	A
	ATOM	1803	CA	TYR A 299	33.760	37.663	24.265	1.00	23.98	A
	ATOM	1804	CB	TYR A 299	34.264	36.304	23.755	1.00	20.13	A
5	ATOM	1805	CG	TYR A 299	34.348	35.233	24.828	1.00	21.17	A
	ATOM	1806	CD1	TYR A 299	35.336	35.279	25.810	1.00	19.32	A
	ATOM	1807	CE1	TYR A 299	35.389	34.332	26.826	1.00	19.30	A
	ATOM	1808	CD2	TYR A 299	33.410	34.201	24.888	1.00	18.96	A
	ATOM	1809	CE2	TYR A 299	33.456	33.243	25.907	1.00	19.41	A
10	ATOM	1810	CZ	TYR A 299	34.449	33.321	26.870	1.00	18.79	A
	ATOM	1811	OH	TYR A 299	34.511	32.401	27.881	1.00	18.77	A
	ATOM	1812	C	TYR A 299	32.699	37.437	25.331	1.00	25.20	A
	ATOM	1813	O	TYR A 299	32.942	37.681	26.506	1.00	26.46	A
	ATOM	1814	N	ASP A 300	31.522	36.981	24.927	1.00	26.94	A
15	ATOM	1815	CA	ASP A 300	30.467	36.710	25.891	1.00	30.60	A
	ATOM	1816	CB	ASP A 300	29.665	37.981	26.179	1.00	35.86	A
	ATOM	1817	CG	ASP A 300	29.228	38.687	24.923	1.00	42.04	A
	ATOM	1818	OD1	ASP A 300	28.450	38.088	24.149	1.00	45.98	A
	ATOM	1819	OD2	ASP A 300	29.666	39.840	24.707	1.00	45.69	A
20	ATOM	1820	C	ASP A 300	29.564	35.608	25.363	1.00	29.26	A
	ATOM	1821	O	ASP A 300	29.590	35.299	24.172	1.00	28.64	A
	ATOM	1822	N	PHE A 301	28.778	35.011	26.253	1.00	28.96	A
	ATOM	1823	CA	PHE A 301	27.884	33.924	25.871	1.00	30.48	A
	ATOM	1824	CB	PHE A 301	27.818	32.854	26.968	1.00	29.17	A
25	ATOM	1825	CG	PHE A 301	29.147	32.279	27.356	1.00	29.29	A
	ATOM	1826	CD1	PHE A 301	29.978	32.949	28.245	1.00	27.31	A
	ATOM	1827	CD2	PHE A 301	29.560	31.050	26.845	1.00	27.89	A
	ATOM	1828	CE1	PHE A 301	31.205	32.403	28.625	1.00	28.83	A
	ATOM	1829	CE2	PHE A 301	30.781	30.498	27.217	1.00	28.05	A
30	ATOM	1830	CZ	PHE A 301	31.605	31.175	28.110	1.00	28.27	A
	ATOM	1831	C	PHE A 301	26.459	34.384	25.619	1.00	32.20	A
	ATOM	1832	O	PHE A 301	25.946	35.261	26.317	1.00	32.36	A
	ATOM	1833	N	PRO A 302	25.798	33.804	24.607	1.00	33.29	A
	ATOM	1834	CD	PRO A 302	26.313	32.943	23.529	1.00	34.04	A
35	ATOM	1835	CA	PRO A 302	24.415	34.199	24.341	1.00	35.24	A
	ATOM	1836	CB	PRO A 302	24.144	33.608	22.959	1.00	34.01	A
	ATOM	1837	CG	PRO A 302	25.041	32.413	22.921	1.00	35.48	A
	ATOM	1838	C	PRO A 302	23.567	33.561	25.444	1.00	37.39	A
	ATOM	1839	O	PRO A 302	23.935	32.518	25.986	1.00	38.49	A
40	ATOM	1840	N	ALA A 303	22.447	34.188	25.783	1.00	39.36	A
	ATOM	1841	CA	ALA A 303	21.572	33.692	26.843	1.00	40.65	A
	ATOM	1842	CB	ALA A 303	20.280	34.506	26.862	1.00	41.66	A
	ATOM	1843	C	ALA A 303	21.238	32.197	26.814	1.00	41.25	A
	ATOM	1844	O	ALA A 303	21.253	31.537	27.854	1.00	43.16	A
45	ATOM	1845	N	ALA A 304	20.945	31.665	25.631	1.00	41.04	A
	ATOM	1846	CA	ALA A 304	20.569	30.258	25.480	1.00	40.66	A
	ATOM	1847	CB	ALA A 304	20.121	30.004	24.040	1.00	41.36	A
	ATOM	1848	C	ALA A 304	21.628	29.223	25.876	1.00	39.61	A
	ATOM	1849	O	ALA A 304	21.298	28.156	26.395	1.00	40.61	A
50	ATOM	1850	N	PHE A 305	22.891	29.543	25.617	1.00	36.21	A
	ATOM	1851	CA	PHE A 305	24.022	28.662	25.909	1.00	32.08	A
	ATOM	1852	CB	PHE A 305	25.259	29.519	26.187	1.00	29.46	A
	ATOM	1853	CG	PHE A 305	26.536	28.917	25.690	1.00	28.15	A
	ATOM	1854	CD1	PHE A 305	27.146	27.875	26.377	1.00	26.20	A
55	ATOM	1855	CD2	PHE A 305	27.127	29.386	24.521	1.00	27.05	A
	ATOM	1856	CE1	PHE A 305	28.330	27.308	25.908	1.00	26.92	A
	ATOM	1857	CE2	PHE A 305	28.312	28.826	24.042	1.00	26.62	A
	ATOM	1858	CZ	PHE A 305	28.914	27.786	24.737	1.00	26.61	A
	ATOM	1859	C	PHE A 305	23.811	27.664	27.057	1.00	30.09	A

	ATOM	1860	O	PHE A 305	23.518	28.051	28.187	1.00	31.51	A
	ATOM	1861	N	PHE A 306	23.964	26.378	26.758	1.00	27.01	A
	ATOM	1862	CA	PHE A 306	23.801	25.334	27.769	1.00	26.30	A
	ATOM	1863	CB	PHE A 306	24.157	23.970	27.170	1.00	25.03	A
5	ATOM	1864	CG	PHE A 306	23.548	23.725	25.815	1.00	27.24	A
	ATOM	1865	CD1	PHE A 306	22.170	23.831	25.622	1.00	28.40	A
	ATOM	1866	CD2	PHE A 306	24.350	23.386	24.728	1.00	27.84	A
	ATOM	1867	CE1	PHE A 306	21.601	23.603	24.365	1.00	28.05	A
	ATOM	1868	CE2	PHE A 306	23.792	23.155	23.465	1.00	28.31	A
10	ATOM	1869	CZ	PHE A 306	22.415	23.263	23.283	1.00	28.00	A
	ATOM	1870	C	PHE A 306	24.711	25.652	28.961	1.00	26.23	A
	ATOM	1871	O	PHE A 306	25.927	25.775	28.811	1.00	25.59	A
	ATOM	1872	N	PRO A 307	24.125	25.796	30.163	1.00	26.67	A
	ATOM	1873	CD	PRO A 307	22.685	25.625	30.430	1.00	27.95	A
15	ATOM	1874	CA	PRO A 307	24.842	26.110	31.405	1.00	26.59	A
	ATOM	1875	CB	PRO A 307	23.795	25.832	32.481	1.00	26.14	A
	ATOM	1876	CG	PRO A 307	22.531	26.250	31.803	1.00	27.86	A
	ATOM	1877	C	PRO A 307	26.145	25.355	31.659	1.00	25.58	A
	ATOM	1878	O	PRO A 307	27.189	25.964	31.900	1.00	22.65	A
20	ATOM	1879	N	LYS A 308	26.085	24.031	31.620	1.00	24.46	A
	ATOM	1880	CA	LYS A 308	27.274	23.232	31.867	1.00	23.91	A
	ATOM	1881	CB	LYS A 308	26.887	21.760	32.024	1.00	23.25	A
	ATOM	1882	CG	LYS A 308	26.062	21.532	33.285	1.00	28.49	A
	ATOM	1883	CD	LYS A 308	25.618	20.093	33.466	1.00	30.17	A
25	ATOM	1884	CE	LYS A 308	24.760	19.973	34.722	1.00	33.12	A
	ATOM	1885	NZ	LYS A 308	24.122	18.636	34.860	1.00	34.13	A
	ATOM	1886	C	LYS A 308	28.314	23.426	30.769	1.00	22.84	A
	ATOM	1887	O	LYS A 308	29.514	23.411	31.042	1.00	22.46	A
	ATOM	1888	N	ALA A 309	27.861	23.621	29.534	1.00	21.59	A
30	ATOM	1889	CA	ALA A 309	28.792	23.848	28.432	1.00	20.02	A
	ATOM	1890	CB	ALA A 309	28.056	23.856	27.106	1.00	18.80	A
	ATOM	1891	C	ALA A 309	29.481	25.191	28.662	1.00	21.41	A
	ATOM	1892	O	ALA A 309	30.680	25.335	28.427	1.00	21.39	A
	ATOM	1893	N	ARG A 310	28.717	26.179	29.121	1.00	21.39	A
35	ATOM	1894	CA	ARG A 310	29.290	27.494	29.388	1.00	22.02	A
	ATOM	1895	CB	ARG A 310	28.213	28.479	29.854	1.00	22.39	A
	ATOM	1896	CG	ARG A 310	28.806	29.756	30.436	1.00	25.30	A
	ATOM	1897	CD	ARG A 310	27.780	30.852	30.664	1.00	28.33	A
	ATOM	1898	NE	ARG A 310	28.420	32.039	31.230	1.00	30.18	A
40	ATOM	1899	CZ	ARG A 310	27.901	33.263	31.203	1.00	32.07	A
	ATOM	1900	NH1	ARG A 310	26.719	33.477	30.634	1.00	31.19	A
	ATOM	1901	NH2	ARG A 310	28.567	34.277	31.742	1.00	30.49	A
	ATOM	1902	C	ARG A 310	30.376	27.388	30.458	1.00	21.65	A
	ATOM	1903	O	ARG A 310	31.464	27.949	30.311	1.00	20.36	A
45	ATOM	1904	N	ASP A 311	30.074	26.677	31.541	1.00	19.57	A
	ATOM	1905	CA	ASP A 311	31.043	26.512	32.615	1.00	20.18	A
	ATOM	1906	CB	ASP A 311	30.460	25.649	33.739	1.00	20.39	A
	ATOM	1907	CG	ASP A 311	31.439	25.446	34.881	1.00	23.35	A
	ATOM	1908	OD1	ASP A 311	32.158	24.428	34.885	1.00	24.91	A
50	ATOM	1909	OD2	ASP A 311	31.500	26.312	35.776	1.00	26.96	A
	ATOM	1910	C	ASP A 311	32.322	25.877	32.073	1.00	19.73	A
	ATOM	1911	O	ASP A 311	33.422	26.289	32.439	1.00	19.30	A
	ATOM	1912	N	LEU A 312	32.179	24.891	31.188	1.00	16.32	A
	ATOM	1913	CA	LEU A 312	33.349	24.226	30.611	1.00	16.66	A
55	ATOM	1914	CB	LEU A 312	32.927	23.035	29.744	1.00	16.12	A
	ATOM	1915	CG	LEU A 312	34.050	22.320	28.974	1.00	14.73	A
	ATOM	1916	CD1	LEU A 312	35.192	21.935	29.912	1.00	14.56	A
	ATOM	1917	CD2	LEU A 312	33.477	21.084	28.289	1.00	14.22	A
	ATOM	1918	C	LEU A 312	34.181	25.189	29.774	1.00	16.61	A

	ATOM	1919	O	LEU A 312	35.402	25.241	29.910	1.00	16.20	A
	ATOM	1920	N	VAL A 313	33.515	25.949	28.908	1.00	16.20	A
	ATOM	1921	CA	VAL A 313	34.207	26.907	28.058	1.00	15.37	A
	ATOM	1922	CB	VAL A 313	33.216	27.648	27.130	1.00	16.42	A
5	ATOM	1923	CG1	VAL A 313	33.915	28.796	26.426	1.00	16.93	A
	ATOM	1924	CG2	VAL A 313	32.644	26.672	26.103	1.00	17.88	A
	ATOM	1925	C	VAL A 313	34.960	27.923	28.911	1.00	17.39	A
	ATOM	1926	O	VAL A 313	36.093	28.294	28.591	1.00	18.00	A
	ATOM	1927	N	GLU A 314	34.342	28.364	30.004	1.00	17.61	A
10	ATOM	1928	CA	GLU A 314	34.986	29.331	30.885	1.00	20.43	A
	ATOM	1929	CB	GLU A 314	34.009	29.816	31.959	1.00	22.14	A
	ATOM	1930	CG	GLU A 314	32.800	30.550	31.396	1.00	26.52	A
	ATOM	1931	CD	GLU A 314	31.852	31.025	32.478	1.00	31.26	A
	ATOM	1932	OE1	GLU A 314	31.580	30.246	33.417	1.00	33.48	A
15	ATOM	1933	OE2	GLU A 314	31.370	32.173	32.387	1.00	34.81	A
	ATOM	1934	C	GLU A 314	36.217	28.721	31.539	1.00	19.15	A
	ATOM	1935	O	GLU A 314	37.134	29.433	31.934	1.00	21.47	A
	ATOM	1936	N	LYS A 315	36.245	27.400	31.651	1.00	19.51	A
	ATOM	1937	CA	LYS A 315	37.394	26.749	32.258	1.00	19.17	A
20	ATOM	1938	CB	LYS A 315	36.946	25.514	33.043	1.00	18.84	A
	ATOM	1939	CG	LYS A 315	36.280	25.885	34.368	1.00	19.62	A
	ATOM	1940	CD	LYS A 315	35.653	24.696	35.073	1.00	19.22	A
	ATOM	1941	CE	LYS A 315	35.070	25.095	36.427	1.00	21.00	A
	ATOM	1942	NZ	LYS A 315	36.119	25.552	37.381	1.00	19.53	A
25	ATOM	1943	C	LYS A 315	38.452	26.393	31.218	1.00	18.96	A
	ATOM	1944	O	LYS A 315	39.511	25.873	31.561	1.00	19.85	A
	ATOM	1945	N	LEU A 316	38.164	26.691	29.950	1.00	17.08	A
	ATOM	1946	CA	LEU A 316	39.102	26.429	28.854	1.00	16.41	A
	ATOM	1947	CB	LEU A 316	38.414	25.636	27.738	1.00	13.81	A
30	ATOM	1948	CG	LEU A 316	38.028	24.201	28.115	1.00	14.39	A
	ATOM	1949	CD1	LEU A 316	37.139	23.597	27.031	1.00	12.38	A
	ATOM	1950	CD2	LEU A 316	39.302	23.373	28.309	1.00	12.77	A
	ATOM	1951	C	LEU A 316	39.652	27.743	28.290	1.00	17.12	A
	ATOM	1952	O	LEU A 316	40.851	27.860	28.023	1.00	16.53	A
35	ATOM	1953	N	LEU A 317	38.780	28.729	28.105	1.00	16.27	A
	ATOM	1954	CA	LEU A 317	39.228	30.022	27.596	1.00	17.52	A
	ATOM	1955	CB	LEU A 317	38.083	30.752	26.887	1.00	16.37	A
	ATOM	1956	CG	LEU A 317	37.448	29.973	25.727	1.00	18.81	A
	ATOM	1957	CD1	LEU A 317	36.415	30.851	25.018	1.00	16.47	A
40	ATOM	1958	CD2	LEU A 317	38.528	29.526	24.741	1.00	17.87	A
	ATOM	1959	C	LEU A 317	39.745	30.841	28.774	1.00	18.27	A
	ATOM	1960	O	LEU A 317	39.078	31.753	29.273	1.00	18.58	A
	ATOM	1961	N	VAL A 318	40.937	30.475	29.229	1.00	18.02	A
	ATOM	1962	CA	VAL A 318	41.593	31.141	30.342	1.00	18.85	A
45	ATOM	1963	CB	VAL A 318	41.846	30.153	31.500	1.00	19.91	A
	ATOM	1964	CG1	VAL A 318	42.590	30.848	32.634	1.00	20.01	A
	ATOM	1965	CG2	VAL A 318	40.520	29.584	31.990	1.00	19.44	A
	ATOM	1966	C	VAL A 318	42.923	31.657	29.811	1.00	19.67	A
	ATOM	1967	O	VAL A 318	43.690	30.902	29.208	1.00	18.26	A
50	ATOM	1968	N	LEU A 319	43.197	32.939	30.028	1.00	20.07	A
	ATOM	1969	CA	LEU A 319	44.436	33.533	29.538	1.00	20.98	A
	ATOM	1970	CB	LEU A 319	44.521	35.002	29.968	1.00	21.64	A
	ATOM	1971	CG	LEU A 319	43.418	35.908	29.408	1.00	24.38	A
	ATOM	1972	CD1	LEU A 319	43.606	37.332	29.935	1.00	23.28	A
55	ATOM	1973	CD2	LEU A 319	43.453	35.887	27.875	1.00	24.33	A
	ATOM	1974	C	LEU A 319	45.680	32.774	29.994	1.00	20.38	A
	ATOM	1975	O	LEU A 319	46.568	32.496	29.192	1.00	21.34	A
	ATOM	1976	N	ASP A 320	45.742	32.440	31.280	1.00	20.22	A
	ATOM	1977	CA	ASP A 320	46.879	31.707	31.833	1.00	20.90	A

	ATOM	1978	CB	ASP	A	320	46.842	31.760	33.365	1.00	20.76	A
	ATOM	1979	CG	ASP	A	320	48.049	31.102	34.004	1.00	21.51	A
	ATOM	1980	OD1	ASP	A	320	48.669	30.226	33.367	1.00	23.46	A
	ATOM	1981	OD2	ASP	A	320	48.371	31.450	35.159	1.00	23.89	A
5	ATOM	1982	C	ASP	A	320	46.814	30.247	31.367	1.00	20.06	A
	ATOM	1983	O	ASP	A	320	45.988	29.476	31.840	1.00	20.54	A
	ATOM	1984	N	ALA	A	321	47.700	29.876	30.451	1.00	20.68	A
	ATOM	1985	CA	ALA	A	321	47.733	28.522	29.903	1.00	22.04	A
	ATOM	1986	CB	ALA	A	321	48.860	28.411	28.881	1.00	20.75	A
10	ATOM	1987	C	ALA	A	321	47.858	27.400	30.940	1.00	21.62	A
	ATOM	1988	O	ALA	A	321	47.482	26.259	30.665	1.00	21.99	A
	ATOM	1989	N	THR	A	322	48.372	27.715	32.127	1.00	20.89	A
	ATOM	1990	CA	THR	A	322	48.531	26.698	33.167	1.00	20.82	A
	ATOM	1991	CB	THR	A	322	49.670	27.051	34.146	1.00	19.47	A
15	ATOM	1992	OG1	THR	A	322	49.341	28.253	34.848	1.00	20.19	A
	ATOM	1993	CG2	THR	A	322	50.981	27.249	33.394	1.00	21.59	A
	ATOM	1994	C	THR	A	322	47.264	26.498	33.983	1.00	19.55	A
	ATOM	1995	O	THR	A	322	47.235	25.673	34.894	1.00	21.13	A
	ATOM	1996	N	LYS	A	323	46.216	27.248	33.661	1.00	19.33	A
20	ATOM	1997	CA	LYS	A	323	44.962	27.122	34.392	1.00	21.20	A
	ATOM	1998	CB	LYS	A	323	44.580	28.460	35.030	1.00	23.75	A
	ATOM	1999	CG	LYS	A	323	45.562	28.933	36.084	1.00	28.45	A
	ATOM	2000	CD	LYS	A	323	45.055	30.177	36.799	1.00	33.76	A
	ATOM	2001	CE	LYS	A	323	46.087	30.678	37.802	1.00	36.15	A
25	ATOM	2002	NZ	LYS	A	323	46.532	29.569	38.693	1.00	37.34	A
	ATOM	2003	C	LYS	A	323	43.806	26.614	33.539	1.00	20.68	A
	ATOM	2004	O	LYS	A	323	42.649	26.757	33.915	1.00	20.42	A
	ATOM	2005	N	ARG	A	324	44.114	26.019	32.392	1.00	19.97	A
	ATOM	2006	CA	ARG	A	324	43.060	25.494	31.531	1.00	17.98	A
30	ATOM	2007	CB	ARG	A	324	43.461	25.609	30.061	1.00	15.95	A
	ATOM	2008	CG	ARG	A	324	43.534	27.050	29.603	1.00	17.34	A
	ATOM	2009	CD	ARG	A	324	43.996	27.194	28.172	1.00	19.80	A
	ATOM	2010	NE	ARG	A	324	44.438	28.565	27.944	1.00	16.93	A
	ATOM	2011	CZ	ARG	A	324	45.410	28.908	27.108	1.00	19.88	A
35	ATOM	2012	NH1	ARG	A	324	46.045	27.978	26.398	1.00	14.58	A
	ATOM	2013	NH2	ARG	A	324	45.774	30.181	27.015	1.00	16.51	A
	ATOM	2014	C	ARG	A	324	42.762	24.046	31.883	1.00	18.32	A
	ATOM	2015	O	ARG	A	324	43.673	23.222	32.006	1.00	18.20	A
	ATOM	2016	N	LEU	A	325	41.479	23.748	32.055	1.00	18.32	A
40	ATOM	2017	CA	LEU	A	325	41.050	22.403	32.395	1.00	17.79	A
	ATOM	2018	CB	LEU	A	325	39.523	22.335	32.425	1.00	17.03	A
	ATOM	2019	CG	LEU	A	325	38.896	21.125	33.116	1.00	15.91	A
	ATOM	2020	CD1	LEU	A	325	39.392	21.048	34.557	1.00	15.93	A
	ATOM	2021	CD2	LEU	A	325	37.375	21.255	33.084	1.00	16.56	A
45	ATOM	2022	C	LEU	A	325	41.599	21.433	31.356	1.00	18.68	A
	ATOM	2023	O	LEU	A	325	41.347	21.586	30.157	1.00	18.28	A
	ATOM	2024	N	GLY	A	326	42.354	20.439	31.821	1.00	18.18	A
	ATOM	2025	CA	GLY	A	326	42.931	19.462	30.915	1.00	16.36	A
	ATOM	2026	C	GLY	A	326	44.443	19.558	30.807	1.00	19.15	A
50	ATOM	2027	O	GLY	A	326	45.093	18.592	30.404	1.00	19.52	A
	ATOM	2028	N	CYS	A	327	45.016	20.708	31.161	1.00	18.16	A
	ATOM	2029	CA	CYS	A	327	46.463	20.867	31.075	1.00	19.30	A
	ATOM	2030	CB	CYS	A	327	46.856	22.350	31.058	1.00	20.22	A
	ATOM	2031	SG	CYS	A	327	46.782	23.200	32.649	1.00	21.97	A
55	ATOM	2032	C	CYS	A	327	47.169	20.157	32.228	1.00	20.22	A
	ATOM	2033	O	CYS	A	327	46.561	19.828	33.246	1.00	17.92	A
	ATOM	2034	N	GLU	A	328	48.463	19.933	32.053	1.00	20.51	A
	ATOM	2035	CA	GLU	A	328	49.274	19.244	33.042	1.00	23.34	A
	ATOM	2036	CB	GLU	A	328	50.710	19.139	32.507	1.00	28.68	A

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        ATOM   2037  CG   GLU A 328      50.754  18.367  31.175  1.00 38.24        A
        ATOM   2038  CD   GLU A 328      52.067  18.500  30.414  1.00 43.23        A
        ATOM   2039  OE1  GLU A 328      52.535  19.643  30.218  1.00 46.22        A
        ATOM   2040  OE2  GLU A 328      52.618  17.459  29.991  1.00 44.90        A
   5    ATOM   2041  C    GLU A 328      49.234  19.876  34.435  1.00 22.11        A
        ATOM   2042  O    GLU A 328      49.147  19.161  35.437  1.00 20.27        A
        ATOM   2043  N    GLU A 329      49.276  21.204  34.506  1.00 18.40        A
        ATOM   2044  CA   GLU A 329      49.248  21.875  35.801  1.00 20.13        A
        ATOM   2045  CB   GLU A 329      49.587  23.363  35.657  1.00 20.36        A
  10    ATOM   2046  CG   GLU A 329      51.014  23.651  35.190  1.00 24.05        A
        ATOM   2047  CD   GLU A 329      51.191  23.518  33.688  1.00 25.93        A
        ATOM   2048  OE1  GLU A 329      50.213  23.154  32.995  1.00 26.61        A
        ATOM   2049  OE2  GLU A 329      52.311  23.781  33.198  1.00 27.19        A
        ATOM   2050  C    GLU A 329      47.890  21.718  36.480  1.00 19.36        A
  15    ATOM   2051  O    GLU A 329      47.775  21.879  37.694  1.00 18.74        A
        ATOM   2052  N    MET A 330      46.863  21.415  35.691  1.00 17.28        A
        ATOM   2053  CA   MET A 330      45.520  21.220  36.229  1.00 16.38        A
        ATOM   2054  CB   MET A 330      44.474  21.833  35.294  1.00 17.65        A
        ATOM   2055  CG   MET A 330      44.460  23.365  35.311  1.00 22.95        A
  20    ATOM   2056  SD   MET A 330      44.186  24.026  36.979  1.00 26.78        A
        ATOM   2057  CE   MET A 330      42.435  23.712  37.186  1.00 24.69        A
        ATOM   2058  C    MET A 330      45.257  19.730  36.422  1.00 14.30        A
        ATOM   2059  O    MET A 330      44.127  19.304  36.629  1.00 15.39        A
        ATOM   2060  N    GLU A 331      46.327  18.949  36.346  1.00 15.60        A
  25    ATOM   2061  CA   GLU A 331      46.289  17.501  36.531  1.00 17.08        A
        ATOM   2062  CB   GLU A 331      45.607  17.155  37.862  1.00 17.00        A
        ATOM   2063  CG   GLU A 331      46.070  18.027  39.038  1.00 17.46        A
        ATOM   2064  CD   GLU A 331      47.591  18.179  39.145  1.00 20.16        A
        ATOM   2065  OE1  GLU A 331      48.034  19.073  39.896  1.00 21.39        A
  30    ATOM   2066  OE2  GLU A 331      48.345  17.420  38.500  1.00 18.87        A
        ATOM   2067  C    GLU A 331      45.697  16.658  35.398  1.00 17.80        A
        ATOM   2068  O    GLU A 331      45.107  15.602  35.636  1.00 20.40        A
        ATOM   2069  N    GLY A 332      45.844  17.133  34.167  1.00 16.23        A
        ATOM   2070  CA   GLY A 332      45.420  16.353  33.015  1.00 14.10        A
  35    ATOM   2071  C    GLY A 332      43.982  16.154  32.596  1.00 13.54        A
        ATOM   2072  O    GLY A 332      43.063  16.864  33.017  1.00 11.96        A
        ATOM   2073  N    TYR A 333      43.804  15.141  31.750  1.00 14.37        A
        ATOM   2074  CA   TYR A 333      42.510  14.806  31.182  1.00 13.56        A
        ATOM   2075  CB   TYR A 333      42.722  13.892  29.968  1.00 15.00        A
  40    ATOM   2076  CG   TYR A 333      43.153  14.683  28.752  1.00 16.46        A
        ATOM   2077  CD1  TYR A 333      42.206  15.172  27.849  1.00 15.29        A
        ATOM   2078  CE1  TYR A 333      42.573  16.002  26.794  1.00 13.42        A
        ATOM   2079  CD2  TYR A 333      44.490  15.039  28.561  1.00 14.91        A
        ATOM   2080  CE2  TYR A 333      44.872  15.877  27.499  1.00 14.87        A
  45    ATOM   2081  CZ   TYR A 333      43.902  16.353  26.626  1.00 15.61        A
        ATOM   2082  OH   TYR A 333      44.244  17.197  25.599  1.00 17.29        A
        ATOM   2083  C    TYR A 333      41.470  14.230  32.127  1.00 15.23        A
        ATOM   2084  O    TYR A 333      40.278  14.323  31.846  1.00 16.63        A
        ATOM   2085  N    GLY A 334      41.907  13.650  33.244  1.00 15.50        A
  50    ATOM   2086  CA   GLY A 334      40.957  13.100  34.202  1.00 15.07        A
        ATOM   2087  C    GLY A 334      39.925  14.146  34.616  1.00 16.40        A
        ATOM   2088  O    GLY A 334      38.724  13.946  34.433  1.00 15.05        A
        ATOM   2089  N    PRO A 335      40.366  15.278  35.184  1.00 14.96        A
        ATOM   2090  CD   PRO A 335      41.727  15.531  35.689  1.00 15.88        A
  55    ATOM   2091  CA   PRO A 335      39.444  16.339  35.606  1.00 15.29        A
        ATOM   2092  CB   PRO A 335      40.383  17.397  36.178  1.00 13.19        A
        ATOM   2093  CG   PRO A 335      41.485  16.569  36.758  1.00 13.81        A
        ATOM   2094  C    PRO A 335      38.594  16.877  34.448  1.00 15.84        A
        ATOM   2095  O    PRO A 335      37.423  17.204  34.631  1.00 14.84        A
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	ATOM	2096	N	LEU	A	336	39.184	16.971	33.257	1.00 16.12	A
	ATOM	2097	CA	LEU	A	336	38.450	17.465	32.094	1.00 15.52	A
	ATOM	2098	CB	LEU	A	336	39.396	17.653	30.898	1.00 14.39	A
	ATOM	2099	CG	LEU	A	336	38.770	17.991	29.538	1.00 15.46	A
5	ATOM	2100	CD1	LEU	A	336	37.836	19.182	29.662	1.00 11.25	A
	ATOM	2101	CD2	LEU	A	336	39.884	18.285	28.528	1.00 14.11	A
	ATOM	2102	C	LEU	A	336	37.321	16.508	31.714	1.00 16.28	A
	ATOM	2103	O	LEU	A	336	36.176	16.921	31.540	1.00 15.51	A
	ATOM	2104	N	LYS	A	337	37.640	15.225	31.592	1.00 17.22	A
10	ATOM	2105	CA	LYS	A	337	36.624	14.243	31.235	1.00 17.39	A
	ATOM	2106	CB	LYS	A	337	37.293	12.900	30.921	1.00 17.68	A
	ATOM	2107	CG	LYS	A	337	38.170	12.994	29.676	1.00 22.31	A
	ATOM	2108	CD	LYS	A	337	39.213	11.892	29.592	1.00 24.60	A
	ATOM	2109	CE	LYS	A	337	38.620	10.560	29.189	1.00 24.76	A
15	ATOM	2110	NZ	LYS	A	337	39.710	9.560	28.997	1.00 25.05	A
	ATOM	2111	C	LYS	A	337	35.577	14.096	32.342	1.00 17.33	A
	ATOM	2112	O	LYS	A	337	34.456	13.652	32.090	1.00 14.42	A
	ATOM	2113	N	ALA	A	338	35.928	14.500	33.559	1.00 15.83	A
	ATOM	2114	CA	ALA	A	338	34.989	14.395	34.674	1.00 17.52	A
20	ATOM	2115	CB	ALA	A	338	35.749	14.167	35.980	1.00 19.68	A
	ATOM	2116	C	ALA	A	338	34.095	15.621	34.804	1.00 18.83	A
	ATOM	2117	O	ALA	A	338	33.252	15.687	35.695	1.00 18.94	A
	ATOM	2118	N	HIS	A	339	34.262	16.596	33.918	1.00 19.42	A
	ATOM	2119	CA	HIS	A	339	33.438	17.796	34.004	1.00 19.28	A
25	ATOM	2120	CB	HIS	A	339	33.865	18.819	32.949	1.00 19.20	A
	ATOM	2121	CG	HIS	A	339	33.163	20.134	33.074	1.00 20.26	A
	ATOM	2122	CD2	HIS	A	339	33.549	21.299	33.649	1.00 18.95	A
	ATOM	2123	ND1	HIS	A	339	31.880	20.340	32.612	1.00 19.10	A
	ATOM	2124	CE1	HIS	A	339	31.506	21.576	32.896	1.00 22.19	A
30	ATOM	2125	NE2	HIS	A	339	32.500	22.179	33.525	1.00 21.98	A
	ATOM	2126	C	HIS	A	339	31.957	17.448	33.845	1.00 19.13	A
	ATOM	2127	O	HIS	A	339	31.597	16.576	33.061	1.00 19.52	A
	ATOM	2128	N	PRO	A	340	31.079	18.125	34.606	1.00 19.80	A
	ATOM	2129	CD	PRO	A	340	31.424	19.119	35.640	1.00 19.08	A
35	ATOM	2130	CA	PRO	A	340	29.630	17.900	34.569	1.00 20.52	A
	ATOM	2131	CB	PRO	A	340	29.091	19.058	35.396	1.00 20.74	A
	ATOM	2132	CG	PRO	A	340	30.146	19.207	36.454	1.00 19.20	A
	ATOM	2133	C	PRO	A	340	29.000	17.834	33.176	1.00 21.42	A
	ATOM	2134	O	PRO	A	340	28.049	17.088	32.955	1.00 22.48	A
40	ATOM	2135	N	PHE	A	341	29.528	18.606	32.237	1.00 21.33	A
	ATOM	2136	CA	PHE	A	341	28.985	18.610	30.886	1.00 21.57	A
	ATOM	2137	CB	PHE	A	341	29.739	19.624	30.017	1.00 21.64	A
	ATOM	2138	CG	PHE	A	341	29.207	19.740	28.613	1.00 23.18	A
	ATOM	2139	CD1	PHE	A	341	27.903	20.171	28.382	1.00 22.58	A
45	ATOM	2140	CD2	PHE	A	341	30.013	19.431	27.522	1.00 21.95	A
	ATOM	2141	CE1	PHE	A	341	27.410	20.292	27.082	1.00 23.54	A
	ATOM	2142	CE2	PHE	A	341	29.533	19.548	26.220	1.00 21.83	A
	ATOM	2143	CZ	PHE	A	341	28.228	19.980	25.998	1.00 23.23	A
	ATOM	2144	C	PHE	A	341	29.055	17.226	30.237	1.00 21.84	A
50	ATOM	2145	O	PHE	A	341	28.232	16.896	29.389	1.00 20.37	A
	ATOM	2146	N	PHE	A	342	30.034	16.422	30.640	1.00 20.51	A
	ATOM	2147	CA	PHE	A	342	30.221	15.085	30.077	1.00 23.01	A
	ATOM	2148	CB	PHE	A	342	31.710	14.809	29.850	1.00 18.00	A
	ATOM	2149	CG	PHE	A	342	32.398	15.812	28.971	1.00 17.05	A
55	ATOM	2150	CD1	PHE	A	342	32.010	15.987	27.652	1.00 17.78	A
	ATOM	2151	CD2	PHE	A	342	33.487	16.534	29.450	1.00 15.72	A
	ATOM	2152	CE1	PHE	A	342	32.702	16.867	26.811	1.00 18.08	A
	ATOM	2153	CE2	PHE	A	342	34.184	17.414	28.617	1.00 17.45	A
	ATOM	2154	CZ	PHE	A	342	33.790	17.578	27.298	1.00 16.56	A

	ATOM	2155	C	PHE	A	342	29.679	13.972	30.976	1.00 24.95	A
	ATOM	2156	O	PHE	A	342	30.002	12.798	30.777	1.00 23.95	A
	ATOM	2157	N	GLU	A	343	28.861	14.333	31.958	1.00 27.35	A
	ATOM	2158	CA	GLU	A	343	28.325	13.349	32.897	1.00 30.28	A
5	ATOM	2159	CB	GLU	A	343	27.187	13.964	33.716	1.00 32.20	A
	ATOM	2160	CG	GLU	A	343	26.581	12.991	34.714	1.00 39.71	A
	ATOM	2161	CD	GLU	A	343	25.628	13.661	35.688	1.00 44.72	A
	ATOM	2162	OE1	GLU	A	343	24.661	14.314	35.234	1.00 47.55	A
	ATOM	2163	OE2	GLU	A	343	25.847	13.526	36.911	1.00 46.89	A
10	ATOM	2164	C	GLU	A	343	27.852	12.017	32.305	1.00 28.98	A
	ATOM	2165	O	GLU	A	343	28.225	10.952	32.800	1.00 31.73	A
	ATOM	2166	N	SER	A	344	27.037	12.067	31.258	1.00 26.09	A
	ATOM	2167	CA	SER	A	344	26.520	10.838	30.656	1.00 28.36	A
	ATOM	2168	CB	SER	A	344	25.129	11.089	30.067	1.00 28.73	A
15	ATOM	2169	OG	SER	A	344	25.203	11.942	28.940	1.00 30.91	A
	ATOM	2170	C	SER	A	344	27.407	10.214	29.577	1.00 27.66	A
	ATOM	2171	O	SER	A	344	26.987	9.281	28.900	1.00 28.66	A
	ATOM	2172	N	VAL	A	345	28.627	10.715	29.419	1.00 26.75	A
	ATOM	2173	CA	VAL	A	345	29.534	10.183	28.402	1.00 23.44	A
20	ATOM	2174	CB	VAL	A	345	30.565	11.256	27.950	1.00 23.10	A
	ATOM	2175	CG1	VAL	A	345	31.589	10.631	26.995	1.00 22.24	A
	ATOM	2176	CG2	VAL	A	345	29.854	12.418	27.275	1.00 20.05	A
	ATOM	2177	C	VAL	A	345	30.326	8.957	28.855	1.00 24.26	A
	ATOM	2178	O	VAL	A	345	30.876	8.930	29.960	1.00 22.83	A
25	ATOM	2179	N	THR	A	346	30.374	7.942	27.997	1.00 21.77	A
	ATOM	2180	CA	THR	A	346	31.153	6.740	28.272	1.00 23.70	A
	ATOM	2181	CB	THR	A	346	30.391	5.455	27.857	1.00 26.53	A
	ATOM	2182	OG1	THR	A	346	29.248	5.284	28.706	1.00 29.98	A
	ATOM	2183	CG2	THR	A	346	31.289	4.231	27.990	1.00 24.28	A
30	ATOM	2184	C	THR	A	346	32.383	6.945	27.385	1.00 23.43	A
	ATOM	2185	O	THR	A	346	32.306	6.827	26.160	1.00 24.50	A
	ATOM	2186	N	TRP	A	347	33.508	7.270	28.013	1.00 22.98	A
	ATOM	2187	CA	TRP	A	347	34.744	7.569	27.300	1.00 23.81	A
	ATOM	2188	CB	TRP	A	347	35.683	8.352	28.219	1.00 22.54	A
35	ATOM	2189	CG	TRP	A	347	35.128	9.658	28.693	1.00 20.61	A
	ATOM	2190	CD2	TRP	A	347	35.257	10.927	28.040	1.00 19.11	A
	ATOM	2191	CE2	TRP	A	347	34.581	11.881	28.838	1.00 18.39	A
	ATOM	2192	CE3	TRP	A	347	35.878	11.351	26.858	1.00 18.16	A
	ATOM	2193	CD1	TRP	A	347	34.397	9.883	29.828	1.00 18.35	A
40	ATOM	2194	NE1	TRP	A	347	34.065	11.218	29.923	1.00 19.51	A
	ATOM	2195	CZ2	TRP	A	347	34.510	13.234	28.491	1.00 16.88	A
	ATOM	2196	CZ3	TRP	A	347	35.808	12.701	26.511	1.00 17.23	A
	ATOM	2197	CH2	TRP	A	347	35.127	13.624	27.327	1.00 18.16	A
	ATOM	2198	C	TRP	A	347	35.538	6.429	26.675	1.00 25.79	A
45	ATOM	2199	O	TRP	A	347	36.304	6.654	25.742	1.00 24.67	A
	ATOM	2200	N	ALA	A	348	35.360	5.215	27.183	1.00 27.10	A
	ATOM	2201	CA	ALA	A	348	36.116	4.063	26.697	1.00 27.46	A
	ATOM	2202	CB	ALA	A	348	35.899	2.869	27.636	1.00 27.09	A
	ATOM	2203	C	ALA	A	348	35.895	3.620	25.256	1.00 27.18	A
50	ATOM	2204	O	ALA	A	348	36.830	3.148	24.613	1.00 29.41	A
	ATOM	2205	N	ASN	A	349	34.682	3.769	24.735	1.00 26.55	A
	ATOM	2206	CA	ASN	A	349	34.418	3.310	23.375	1.00 27.28	A
	ATOM	2207	CB	ASN	A	349	33.700	1.962	23.444	1.00 29.37	A
	ATOM	2208	CG	ASN	A	349	32.299	2.088	24.013	1.00 30.92	A
55	ATOM	2209	OD1	ASN	A	349	32.045	2.942	24.859	1.00 30.17	A
	ATOM	2210	ND2	ASN	A	349	31.386	1.237	23.553	1.00 33.52	A
	ATOM	2211	C	ASN	A	349	33.599	4.265	22.509	1.00 26.47	A
	ATOM	2212	O	ASN	A	349	32.669	3.843	21.819	1.00 25.87	A
	ATOM	2213	N	LEU	A	350	33.947	5.543	22.518	1.00 24.45	A

	ATOM	2214	CA	LEU A 350	33.203	6.510	21.721	1.00	23.14	A
	ATOM	2215	CB	LEU A 350	33.837	7.898	21.848	1.00	23.22	A
	ATOM	2216	CG	LEU A 350	33.659	8.605	23.191	1.00	21.05	A
	ATOM	2217	CD1	LEU A 350	34.646	9.756	23.293	1.00	19.36	A
5	ATOM	2218	CD2	LEU A 350	32.220	9.094	23.319	1.00	18.78	A
	ATOM	2219	C	LEU A 350	33.082	6.152	20.240	1.00	22.60	A
	ATOM	2220	O	LEU A 350	32.011	6.296	19.650	1.00	21.15	A
	ATOM	2221	N	HIS A 351	34.165	5.689	19.627	1.00	23.13	A
	ATOM	2222	CA	HIS A 351	34.089	5.387	18.204	1.00	27.83	A
10	ATOM	2223	CB	HIS A 351	35.506	5.325	17.596	1.00	29.36	A
	ATOM	2224	CG	HIS A 351	36.082	3.950	17.493	1.00	32.07	A
	ATOM	2225	CD2	HIS A 351	36.611	3.128	18.431	1.00	32.39	A
	ATOM	2226	ND1	HIS A 351	36.197	3.285	16.291	1.00	33.02	A
	ATOM	2227	CE1	HIS A 351	36.775	2.113	16.493	1.00	33.58	A
15	ATOM	2228	NE2	HIS A 351	37.036	1.992	17.782	1.00	31.76	A
	ATOM	2229	C	HIS A 351	33.258	4.144	17.874	1.00	28.12	A
	ATOM	2230	O	HIS A 351	33.015	3.847	16.707	1.00	29.49	A
	ATOM	2231	N	GLN A 352	32.800	3.442	18.908	1.00	29.28	A
	ATOM	2232	CA	GLN A 352	31.963	2.255	18.726	1.00	29.67	A
20	ATOM	2233	CB	GLN A 352	32.366	1.145	19.694	1.00	30.56	A
	ATOM	2234	CG	GLN A 352	33.169	0.041	19.041	1.00	30.88	A
	ATOM	2235	CD	GLN A 352	34.493	-0.186	19.729	1.00	31.21	A
	ATOM	2236	OE1	GLN A 352	34.541	-0.450	20.928	1.00	30.76	A
	ATOM	2237	NE2	GLN A 352	35.578	-0.084	18.971	1.00	32.30	A
25	ATOM	2238	C	GLN A 352	30.504	2.638	18.963	1.00	30.42	A
	ATOM	2239	O	GLN A 352	29.595	1.831	18.770	1.00	29.01	A
	ATOM	2240	N	GLN A 353	30.290	3.875	19.397	1.00	27.64	A
	ATOM	2241	CA	GLN A 353	28.948	4.365	19.652	1.00	27.42	A
	ATOM	2242	CB	GLN A 353	28.977	5.401	20.775	1.00	25.77	A
30	ATOM	2243	CG	GLN A 353	29.408	4.837	22.115	1.00	27.34	A
	ATOM	2244	CD	GLN A 353	29.638	5.914	23.156	1.00	27.19	A
	ATOM	2245	OE1	GLN A 353	28.875	6.872	23.252	1.00	28.29	A
	ATOM	2246	NE2	GLN A 353	30.687	5.753	23.951	1.00	28.79	A
	ATOM	2247	C	GLN A 353	28.375	4.989	18.385	1.00	29.00	A
35	ATOM	2248	O	GLN A 353	29.118	5.455	17.516	1.00	29.14	A
	ATOM	2249	N	THR A 354	27.053	4.984	18.276	1.00	27.31	A
	ATOM	2250	CA	THR A 354	26.390	5.568	17.119	1.00	27.85	A
	ATOM	2251	CB	THR A 354	24.991	4.941	16.904	1.00	30.69	A
	ATOM	2252	OG1	THR A 354	25.132	3.532	16.665	1.00	30.07	A
40	ATOM	2253	CG2	THR A 354	24.289	5.585	15.709	1.00	29.58	A
	ATOM	2254	C	THR A 354	26.244	7.062	17.376	1.00	26.85	A
	ATOM	2255	O	THR A 354	25.592	7.475	18.329	1.00	25.77	A
	ATOM	2256	N	PRO A 355	26.867	7.898	16.533	1.00	27.22	A
	ATOM	2257	CD	PRO A 355	27.792	7.588	15.431	1.00	25.89	A
45	ATOM	2258	CA	PRO A 355	26.763	9.346	16.734	1.00	27.23	A
	ATOM	2259	CB	PRO A 355	27.625	9.915	15.609	1.00	24.91	A
	ATOM	2260	CG	PRO A 355	28.643	8.838	15.385	1.00	25.54	A
	ATOM	2261	C	PRO A 355	25.322	9.837	16.641	1.00	28.07	A
	ATOM	2262	O	PRO A 355	24.548	9.364	15.810	1.00	27.24	A
50	ATOM	2263	N	PRO A 356	24.941	10.792	17.500	1.00	28.28	A
	ATOM	2264	CD	PRO A 356	25.752	11.560	18.462	1.00	28.31	A
	ATOM	2265	CA	PRO A 356	23.572	11.306	17.448	1.00	28.44	A
	ATOM	2266	CB	PRO A 356	23.539	12.301	18.604	1.00	28.11	A
	ATOM	2267	CG	PRO A 356	24.946	12.832	18.612	1.00	26.86	A
55	ATOM	2268	C	PRO A 356	23.363	11.978	16.097	1.00	29.25	A
	ATOM	2269	O	PRO A 356	24.304	12.537	15.529	1.00	27.27	A
	ATOM	2270	N	ALA A 357	22.143	11.910	15.575	1.00	30.45	A
	ATOM	2271	CA	ALA A 357	21.848	12.521	14.287	1.00	32.81	A
	ATOM	2272	CB	ALA A 357	20.507	12.019	13.757	1.00	31.99	A

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      ATOM  2273  C   ALA A 357      21.824  14.035  14.448  1.00 35.05        A
      ATOM  2274  O   ALA A 357      21.194  14.561  15.369  1.00 35.04        A
      ATOM  2275  N   LEU A 358      22.516  14.730  13.552  1.00 37.81        A
      ATOM  2276  CA  LEU A 358      22.578  16.185  13.597  1.00 42.15        A
  5   ATOM  2277  CB  LEU A 358      23.679  16.681  12.658  1.00 39.54        A
      ATOM  2278  CG  LEU A 358      25.086  16.285  13.109  1.00 39.51        A
      ATOM  2279  CD1 LEU A 358      26.102  16.686  12.062  1.00 39.29        A
      ATOM  2280  CD2 LEU A 358      25.395  16.953  14.445  1.00 40.01        A
      ATOM  2281  C   LEU A 358      21.241  16.837  13.242  1.00 45.91        A
 10   ATOM  2282  O   LEU A 358      20.874  16.927  12.069  1.00 45.71        A
      ATOM  2283  N   THR A 359      20.530  17.290  14.275  1.00 50.06        A
      ATOM  2284  CA  THR A 359      19.223  17.939  14.140  1.00 53.73        A
      ATOM  2285  CB  THR A 359      19.353  19.428  13.726  1.00 54.04        A
      ATOM  2286  OG1 THR A 359      19.995  19.521  12.448  1.00 56.35        A
 15   ATOM  2287  CG2 THR A 359      20.158  20.204  14.763  1.00 54.32        A
      ATOM  2288  C   THR A 359      18.309  17.236  13.139  1.00 54.47        A
      ATOM  2289  O   THR A 359      18.483  16.016  12.930  1.00 55.90        A
      ATOM  2290  OXT THR A 359      17.407  17.908  12.595  1.00 56.97        A
      ATOM  2291  OH2 TIP S   1      42.566  19.118  34.302  1.00 15.09        S
 20   ATOM  2292  OH2 TIP S   2      41.052  32.378  19.857  1.00 15.82        S
      ATOM  2293  OH2 TIP S   3      37.014  33.030  17.747  1.00 16.95        S
      ATOM  2294  OH2 TIP S   5      45.353  24.370  18.152  1.00 16.85        S
      ATOM  2295  OH2 TIP S   6      31.896  13.930  33.235  1.00 20.42        S
      ATOM  2296  OH2 TIP S   7      50.351  22.781  28.249  1.00 21.14        S
 25   ATOM  2297  OH2 TIP S   8      45.246  -0.589  -0.734  1.00 17.74        S
      ATOM  2298  OH2 TIP S  11      46.249  -0.348  -8.523  1.00 21.32        S
      ATOM  2299  OH2 TIP S  14      45.756  11.148  29.680  1.00 21.94        S
      ATOM  2300  OH2 TIP S  15      44.273  13.157  34.592  1.00 15.61        S
      ATOM  2301  OH2 TIP S  17      53.598   3.722  -1.720  1.00 21.45        S
 30   ATOM  2302  OH2 TIP S  18      46.049  13.087  31.565  1.00 20.35        S
      ATOM  2303  OH2 TIP S  19      53.422  22.401  -3.280  1.00 23.26        S
      ATOM  2304  OH2 TIP S  20      34.587   7.922   5.383  1.00 22.58        S
      ATOM  2305  OH2 TIP S  21      45.053  27.379  19.376  1.00 29.60        S
      ATOM  2306  OH2 TIP S  23      28.899  36.416  28.633  1.00 31.68        S
 35   ATOM  2307  OH2 TIP S  24      35.531  11.645  -8.219  1.00 23.45        S
      ATOM  2308  OH2 TIP S  25      47.364  28.787  19.612  1.00 23.03        S
      ATOM  2309  OH2 TIP S  27      48.859  21.588  12.634  1.00 23.76        S
      ATOM  2310  OH2 TIP S  29      48.805   8.920  23.626  1.00 22.23        S
      ATOM  2311  OH2 TIP S  31      48.619   7.247  10.112  1.00 21.32        S
 40   ATOM  2312  OH2 TIP S  34      44.824  28.720  15.621  1.00 25.27        S
      ATOM  2313  OH2 TIP S  35      26.030  12.634  13.407  1.00 21.61        S
      ATOM  2314  OH2 TIP S  36      50.462  19.810  40.066  1.00 25.45        S
      ATOM  2315  OH2 TIP S  37      39.631  23.510  -0.239  1.00 30.88        S
      ATOM  2316  OH2 TIP S  40      44.734  42.655  10.346  1.00 30.84        S
 45   ATOM  2317  OH2 TIP S  41      54.653   3.902   1.503  1.00 27.14        S
      ATOM  2318  OH2 TIP S  45      45.693  21.923  39.754  1.00 28.30        S
      ATOM  2319  OH2 TIP S  47      47.820  16.413   7.805  1.00 25.73        S
      ATOM  2320  OH2 TIP S  48      50.292  31.412  29.642  1.00 32.79        S
      ATOM  2321  OH2 TIP S  49      26.056  16.646  34.827  1.00 29.80        S
 50   ATOM  2322  OH2 TIP S  52      31.714  10.996  31.855  1.00 29.15        S
      ATOM  2323  OH2 TIP S  53      46.108  23.843  -4.299  1.00 24.21        S
      ATOM  2324  OH2 TIP S  54      37.645  11.206  34.448  1.00 28.56        S
      ATOM  2325  OH2 TIP S  55      26.371  28.513  12.142  1.00 32.08        S
      ATOM  2326  OH2 TIP S  58      33.564  19.700   3.483  1.00 28.28        S
 55   ATOM  2327  OH2 TIP S  64      48.295  -0.632  14.280  1.00 32.13        S
      ATOM  2328  OH2 TIP S  65      40.064  26.036  34.324  1.00 24.17        S
      ATOM  2329  OH2 TIP S  66      29.570   3.958  14.729  1.00 28.94        S
      ATOM  2330  OH2 TIP S  72      60.085  11.604   6.814  1.00 38.35        S
      ATOM  2331  OH2 TIP S  73      39.203  44.403  18.686  1.00 26.61        S
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      ATOM   2332   OH2 TIP S   76     47.312   12.366   27.366   1.00 28.51        S
      ATOM   2333   OH2 TIP S   80     43.862   33.771   33.329   1.00 28.82        S
      ATOM   2334   OH2 TIP S   81     57.890   13.106    2.128   1.00 40.62        S
      ATOM   2335   OH2 TIP S   82     41.663   34.381   32.043   1.00 19.35        S
 5    ATOM   2336   OH2 TIP S   85     50.974   40.331   19.200   1.00 21.14        S
      ATOM   2337   OH2 TIP S   88     47.925   -0.832   -6.556   1.00 24.11        S
      ATOM   2338   OH2 TIP S   90     27.231   28.336   33.481   1.00 27.64        S
      ATOM   2339   OH2 TIP S   91     43.651   -7.101   -7.995   1.00 24.33        S
      ATOM   2340   OH2 TIP S   92     49.325    4.387   19.370   1.00 28.02        S
 10   ATOM   2341   OH2 TIP S   93     46.231   11.549   33.898   1.00 29.40        S
      ATOM   2342   OH2 TIP S   94     63.889   24.831    1.168   1.00 26.53        S
      ATOM   2343   OH2 TIP S   96     56.396    4.952   -6.749   1.00 28.00        S
      ATOM   2344   OH2 TIP S   98     35.510   27.986   11.558   1.00 29.24        S
      ATOM   2345   OH2 TIP S  100     49.942   24.366   30.265   1.00 31.61        S
 15   ATOM   2346   OH2 TIP S  101     56.121    7.113   -8.298   1.00 31.57        S
      ATOM   2347   OH2 TIP S  102     58.318   19.957   -8.378   1.00 26.95        S
      ATOM   2348   OH2 TIP S  103     49.647   22.446   39.624   1.00 40.57        S
      ATOM   2349   OH2 TIP S  104     45.359    7.052   13.052   1.00 26.27        S
      ATOM   2350   OH2 TIP S  105     37.150   32.340   32.346   1.00 34.45        S
 20   ATOM   2351   OH2 TIP S  107     43.465   40.457    8.240   1.00 40.48        S
      ATOM   2352   OH2 TIP S  119     36.644    8.257   13.418   1.00 30.70        S
      ATOM   2353   OH2 TIP S  123     41.912   -8.974   -8.264   1.00 26.08        S
      ATOM   2354   OH2 TIP S  124     62.424   15.800   -7.411   1.00 24.08        S
      ATOM   2355   OH2 TIP S  126     37.266   18.656   -9.097   1.00 28.99        S
 25   ATOM   2356   OH2 TIP S  127     43.129   26.845   14.606   1.00 25.19        S
      ATOM   2357   OH2 TIP S  128     36.339   32.639   29.802   1.00 29.25        S
      ATOM   2358   OH2 TIP S  130     54.051   14.561   26.498   1.00 33.93        S
      ATOM   2359   OH2 TIP S  131     41.805   -4.242    5.492   1.00 33.72        S
      ATOM   2360   OH2 TIP S  133     38.873   25.163   36.697   1.00 30.69        S
 30   ATOM   2361   OH2 TIP S  134     28.777    8.553   25.307   1.00 31.43        S
      ATOM   2362   OH2 TIP S  135     53.672   10.546  -12.803   1.00 33.45        S
      ATOM   2363   OH2 TIP S  136     59.892   15.434   11.467   1.00 31.39        S
      ATOM   2364   OH2 TIP S  137     31.040   12.361   35.470   1.00 34.07        S
      ATOM   2365   OH2 TIP S  139     33.489   14.292   -0.598   1.00 40.68        S
 35   ATOM   2366   OH2 TIP S  140     46.918    8.748   11.662   1.00 29.23        S
      ATOM   2367   OH2 TIP S  141     46.297   -7.287   -9.196   1.00 42.20        S
      ATOM   2368   OH2 TIP S  142     58.193    6.715   -4.685   1.00 35.48        S
      ATOM   2369   OH2 TIP S  143     44.598    4.435   12.503   1.00 27.68        S
      ATOM   2370   OH2 TIP S  144     27.003    5.999   12.450   1.00 36.30        S
 40   ATOM   2371   OH2 TIP S  145     43.676   32.852   35.735   1.00 35.70        S
      ATOM   2372   OH2 TIP S  146     35.783   18.628   36.452   1.00 34.62        S
      ATOM   2373   OH2 TIP S  147     25.402    4.058   20.638   1.00 45.03        S
      ATOM   2374   OH2 TIP S  148     45.839   35.853   33.724   1.00 35.47        S
      ATOM   2375   OH2 TIP S  149     22.176   18.976   16.752   1.00 31.87        S
 45   ATOM   2376   OH2 TIP S  150     43.986   33.179   10.162   1.00 37.70        S
      ATOM   2377   OH2 TIP S  151     50.653   20.347   42.428   1.00 35.80        S
      ATOM   2378   OH2 TIP S  152     47.843   24.314    9.506   1.00 31.05        S
      ATOM   2379   OH2 TIP S  153     44.693    5.273  -14.175   1.00 29.90        S
      ATOM   2380   OH2 TIP S  155     26.560   36.851   31.684   1.00 49.29        S
 50   ATOM   2381   OH2 TIP S  156     46.867    8.019  -12.951   1.00 29.21        S
      ATOM   2382   OH2 TIP S  157     30.432   28.741   12.438   1.00 37.76        S
      ATOM   2383   OH2 TIP S  158     41.004   20.553    6.423   1.00 39.53        S
      ATOM   2384   OH2 TIP S  159     49.258   20.069   29.294   1.00 33.97        S
      ATOM   2385   OH2 TIP S  160     48.082   28.459   16.489   1.00 33.10        S
 55   ATOM   2386   OH2 TIP S  161     47.448   18.625   27.683   1.00 34.87        S
      ATOM   2387   OH2 TIP S  162     19.687   20.632   23.411   1.00 35.01        S
      ATOM   2388   OH2 TIP S  163     32.402   -1.266   22.443   1.00 37.26        S
      ATOM   2389   OH2 TIP S  164     39.475   33.468   33.237   1.00 35.34        S
      ATOM   2390   OH2 TIP S  165     44.277   18.950    5.162   1.00 45.14        S
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        ATOM  2391  OH2 TIP S 166    34.797  30.523  10.736  1.00 47.55        S
        ATOM  2392  OH2 TIP S 167    46.541   3.526 -14.949  1.00 26.54        S
        ATOM  2393  OH2 TIP S 168    36.333  16.371   1.539  1.00 38.68        S
        ATOM  2394  OH2 TIP S 169    46.761  38.936  27.403  1.00 34.66        S
   5    ATOM  2395  OH2 TIP S 170    24.163  13.264  11.375  1.00 41.23        S
        ATOM  2396  OH2 TIP S 171    48.459  15.018  31.951  1.00 38.11        S
        ATOM  2397  OH2 TIP S 172    34.261  23.193  40.004  1.00 48.96        S
        ATOM  2398  OH2 TIP S 173    45.924  -0.026  13.224  1.00 39.55        S
        ATOM  2399  OH2 TIP S 175    41.384  37.389  32.543  1.00 40.74        S
  10    ATOM  2400  OH2 TIP S 177    49.394  35.312  27.150  1.00 44.33        S
        ATOM  2401  OH2 TIP S 178    29.066  29.942  34.359  1.00 41.46        S
        ATOM  2402  OH2 TIP S 180    49.354  19.467   7.273  1.00 34.56        S
        ATOM  2403  OH2 TIP S 181    25.298  17.029  31.863  1.00 47.74        S
        ATOM  2404  OH2 TIP S 182    37.071  25.027   4.669  1.00 43.87        S
  15    ATOM  2405  OH2 TIP S 183    22.581   7.487  18.691  1.00 41.75        S
        ATOM  2406  OH2 TIP S 184    32.269   7.011  -1.891  1.00 48.84        S
        ATOM  2407  OH2 TIP S 185    48.234   0.494   6.833  1.00 48.16        S
        ATOM  2408  OH2 TIP S 187    20.008  14.658  19.211  1.00 45.27        S
        ATOM  2409  OH2 TIP S 188    49.341  22.698  42.272  1.00 42.20        S
  20    ATOM  2410  OH2 TIP S 190    61.292  18.260  -8.097  1.00 45.21        S
        ATOM  2411  OH2 TIP S 191    28.152  10.606   2.819  1.00 40.38        S
        ATOM  2412  OH2 TIP S 192    25.626  12.619  23.191  1.00 34.27        S
        ATOM  2413  OH2 TIP S 193    59.876  11.603   1.216  1.00 46.54        S
        ATOM  2414  OH2 TIP S 194    57.592  21.183 -10.646  1.00 45.82        S
  25    ATOM  2415  OH2 TIP S 195    31.509  36.649  21.499  1.00 38.73        S
        ATOM  2416  OH2 TIP S 197    50.270  -1.543  -6.136  1.00 42.66        S
        ATOM  2417  OH2 TIP S 198    24.467   8.729  13.088  1.00 42.78        S
        ATOM  2418  OH2 TIP S 199    38.098   8.699  25.759  1.00 32.80        S
        ATOM  2419  OH2 TIP S 200    57.831  11.358 -13.255  1.00 45.31        S
  30    ATOM  2420  OH2 TIP S 201    23.888  22.328  30.524  1.00 37.12        S
        ATOM  2421  OH2 TIP S 202    47.691  26.068  37.666  1.00 37.92        S
        ATOM  2422  OH2 TIP S 203    38.653   7.070  29.307  1.00 50.54        S
        ATOM  2423  OH2 TIP S 206    44.424  27.583   2.092  1.00 53.50        S
        ATOM  2424  OH2 TIP S 212    22.258   2.296  17.948  1.00 47.38        S
  35    ATOM  2425  OH2 TIP S 214    19.843  17.943  23.303  1.00 30.36        S
        ATOM  2426  OH2 TIP S 216    27.647  11.344  24.681  1.00 31.32        S
        ATOM  2427  OH2 TIP S 217    37.953   7.817  -9.284  1.00 45.97        S
        ATOM  2428  OH2 TIP S 218    33.845  34.040  12.124  1.00 38.11        S
        ATOM  2429  OH2 TIP S 219    58.484  15.269  13.717  1.00 38.26        S
  40    ATOM  2430  OH2 TIP S 220    48.526  40.920  26.583  1.00 35.23        S
        ATOM  2431  OH2 TIP S 222    52.094  21.184  38.122  1.00 29.86        S
        ATOM  2432  OH2 TIP S 223    36.889   5.881   3.281  1.00 37.63        S
        ATOM  2433  OH2 TIP S 224    47.642  -1.401 -10.684  1.00 34.89        S
        ATOM  2434  OH2 TIP S 226    47.284   2.916  19.133  1.00 34.10        S
  45    ATOM  2435  OH2 TIP S 227    42.468   4.463 -15.039  1.00 37.98        S
        ATOM  2436  OH2 TIP S 228    19.169  22.832  21.831  1.00 41.57        S
        ATOM  2437  OH2 TIP S 231    57.592  12.689  14.880  1.00 50.22        S
        ATOM  2438  OH2 TIP S 232    27.102   9.176   5.655  1.00 40.57        S
        ATOM  2439  OH2 TIP S 233    58.618   9.072 -11.925  1.00 50.71        S
  50    ATOM  2440  OH2 TIP S 234    22.822  25.342  19.945  1.00 34.93        S
        ATOM  2441  OH2 TIP S 236    24.831  32.218  28.901  1.00 37.69        S
        ATOM  2442  OH2 TIP S 237    20.045  10.774  16.992  1.00 39.57        S
        ATOM  2443  OH2 TIP S 238    58.019  19.850  15.679  1.00 41.42        S
        ATOM  2444  OH2 TIP S 239    19.490  20.949  26.114  1.00 34.55        S
  55    ATOM  2445  OH2 TIP S 240    61.187  26.377   7.346  1.00 39.68        S
        ATOM  2446  OH2 TIP S 241    33.680  38.342  19.389  1.00 48.93        S
        ATOM  2447  OH2 TIP S 242    51.539  31.612  10.881  1.00 55.65        S
        ATOM  2448  OH2 TIP S 244    25.872  14.431  30.404  1.00 46.69        S
        ATOM  2449  OH2 TIP S 248    37.332   5.849   9.544  1.00 43.81        S
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	ATOM	2450	OH2	TIP	S	250	39.087	-1.293	-9.655	1.00 42.96	S
	ATOM	2451	OH2	TIP	S	258	23.938	30.000	30.010	1.00 38.89	S
	ATOM	2452	OH2	TIP	S	259	24.949	29.749	32.578	1.00 40.17	S
	ATOM	2453	OH2	TIP	S	260	32.111	17.986	1.918	1.00 48.36	S
5	ATOM	2454	OH2	TIP	S	266	21.404	12.876	25.603	1.00 57.17	S
	ATOM	2455	OH2	TIP	S	269	35.425	36.767	12.550	1.00 30.70	S
	ATOM	2456	OH2	TIP	S	270	52.438	25.529	30.131	1.00 44.85	S
	ATOM	2457	OH2	TIP	S	271	53.299	20.156	36.003	1.00 37.15	S
	ATOM	2458	OH2	TIP	S	272	50.914	6.919	23.723	1.00 43.29	S
10	ATOM	2459	OH2	TIP	S	274	31.578	30.795	11.014	1.00 50.15	S
	ATOM	2460	OH2	TIP	S	275	26.341	7.243	22.447	1.00 39.40	S
	ATOM	2461	OH2	TIP	S	276	60.392	18.195	10.235	1.00 37.91	S
	ATOM	2462	OH2	TIP	S	277	47.355	-9.081	-10.821	1.00 48.18	S
	ATOM	2463	OH2	TIP	S	279	41.304	6.175	-16.647	1.00 38.12	S
15	ATOM	2464	OH2	TIP	S	282	33.299	21.620	37.881	1.00 46.29	S
	ATOM	2465	OH2	TIP	S	283	56.469	26.112	-8.575	1.00 43.71	S
	ATOM	2466	OH2	TIP	S	287	48.382	26.573	7.246	1.00 41.43	S
	ATOM	2467	OH2	TIP	S	288	56.240	7.245	-11.331	1.00 41.79	S
	ATOM	2468	OH2	TIP	S	290	49.060	14.978	28.166	1.00 37.03	S
20	ATOM	2469	OH2	TIP	S	291	37.095	44.270	26.442	1.00 45.08	S
	ATOM	2470	OH2	TIP	S	292	47.814	-0.384	-13.299	1.00 48.60	S
	ATOM	2471	OH2	TIP	S	297	58.081	2.784	-7.841	1.00 41.89	S
	ATOM	2472	OH2	TIP	S	298	36.447	45.321	18.644	1.00 54.91	S
	ATOM	2473	OH2	TIP	S	299	49.029	23.328	1.767	1.00 30.55	S
25	ATOM	2474	OH2	TIP	S	301	24.375	13.771	8.634	1.00 48.47	S
	ATOM	2475	OH2	TIP	S	303	47.904	36.798	28.653	1.00 35.76	S
	ATOM	2476	OH2	TIP	S	305	51.156	40.821	27.172	1.00 43.59	S
	ATOM	2477	OH2	TIP	S	306	32.943	28.917	35.227	1.00 42.60	S
	ATOM	2478	OH2	TIP	S	307	58.462	28.373	6.251	1.00 46.15	S
30	ATOM	2479	OH2	TIP	S	308	41.964	30.940	36.712	1.00 48.26	S
	ATOM	2480	OH2	TIP	S	313	51.176	-1.922	-3.336	1.00 50.61	S
	ATOM	2481	OH2	TIP	S1001	21.319	36.868	23.805	1.00 36.97	S
	ATOM	2482	OH2	TIP	S1002	48.880	32.620	27.617	1.00 44.40	S
	ATOM	2483	OH2	TIP	S1003	61.880	19.473	11.767	1.00 45.49	S
35	ATOM	2484	OH2	TIP	S1004	52.770	21.424	26.815	1.00 24.43	S
	ATOM	2485	OH2	TIP	S1005	35.373	29.094	36.197	1.00 35.97	S
	ATOM	2486	OH2	TIP	S1006	40.815	-6.636	4.389	1.00 43.15	S
	ATOM	2487	OH2	TIP	S1007	44.953	1.286	11.272	1.00 49.45	S
	ATOM	2488	OH2	TIP	S1010	21.004	16.168	27.009	1.00 48.51	S
40	ATOM	2489	OH2	TIP	S1011	47.094	41.786	9.243	1.00 50.10	S
	ATOM	2490	OH2	TIP	S1012	32.479	2.978	14.158	1.00 49.47	S
	ATOM	2491	O12	GLC	G	1	48.557	11.372	-12.279	1.00 40.72	G
	ATOM	2492	C11	GLC	G	1	48.836	12.133	-11.097	1.00 38.05	G
	ATOM	2493	C13	GLC	G	1	49.266	13.554	-11.476	1.00 38.09	G
45	ATOM	2494	O14	GLC	G	1	49.559	14.299	-10.292	1.00 33.99	G
	ATOM	2495	C15	GLC	G	1	48.150	14.257	-12.257	1.00 37.32	G
	ATOM	2496	O16	GLC	G	1	48.574	15.582	-12.604	1.00 36.74	G
	ATOM	2497	O12	GLC	G	2	40.114	-6.634	-6.562	1.00 33.52	G
	ATOM	2498	C11	GLC	G	2	38.967	-6.592	-7.404	1.00 31.05	G
50	ATOM	2499	C13	GLC	G	2	37.712	-6.417	-6.552	1.00 31.56	G
	ATOM	2500	O14	GLC	G	2	36.554	-6.406	-7.389	1.00 30.70	G
	ATOM	2501	C15	GLC	G	2	37.792	-5.109	-5.761	1.00 30.03	G
	ATOM	2502	O16	GLC	G	2	36.609	-4.961	-4.975	1.00 29.66	G
	ATOM	2503	O12	GLC	G	3	44.030	8.243	-13.470	1.00 37.90	G
55	ATOM	2504	C11	GLC	G	3	43.950	9.648	-13.690	1.00 38.47	G
	ATOM	2505	C13	GLC	G	3	42.747	9.974	-14.579	1.00 39.52	G
	ATOM	2506	O14	GLC	G	3	41.551	9.526	-13.942	1.00 39.39	G
	ATOM	2507	C15	GLC	G	3	42.878	9.280	-15.934	1.00 41.43	G
	ATOM	2508	O16	GLC	G	3	41.736	9.613	-16.731	1.00 40.78	G

	ATOM	2509	O12	GLC	G	5	40.556	1.005	2.289	1.00 45.25	G
	ATOM	2510	C11	GLC	G	5	40.966	2.332	1.960	1.00 40.56	G
	ATOM	2511	C13	GLC	G	5	40.187	3.327	2.814	1.00 40.36	G
	ATOM	2512	O14	GLC	G	5	38.791	3.169	2.572	1.00 40.71	G
5	ATOM	2513	C15	GLC	G	5	40.619	4.751	2.464	1.00 40.04	G
	ATOM	2514	O16	GLC	G	5	39.885	5.681	3.256	1.00 36.89	G
	ATOM	2515	O12	GLC	G	6	36.951	22.702	40.046	1.00 63.04	G
	ATOM	2516	C11	GLC	G	6	37.592	21.583	39.422	1.00 62.46	G
	ATOM	2517	C13	GLC	G	6	38.104	21.978	38.030	1.00 61.14	G
10	ATOM	2518	O14	GLC	G	6	39.034	23.054	38.168	1.00 61.72	G
	ATOM	2519	C15	GLC	G	6	36.948	22.429	37.126	1.00 60.51	G
	ATOM	2520	O16	GLC	G	6	35.992	21.372	36.960	1.00 58.61	G
	ATOM	2521	O12	GLC	G	7	37.316	0.281	14.299	1.00 73.45	G
	ATOM	2522	C11	GLC	G	7	37.655	-0.758	15.222	1.00 72.78	G
15	ATOM	2523	C13	GLC	G	7	36.592	-1.856	15.157	1.00 72.98	G
	ATOM	2524	O14	GLC	G	7	35.320	-1.299	15.498	1.00 73.88	G
	ATOM	2525	C15	GLC	G	7	36.924	-2.989	16.134	1.00 73.66	G
	ATOM	2526	O16	GLC	G	7	36.972	-2.493	17.478	1.00 75.38	G
	ATOM	2527	O12	GLC	G	8	51.921	21.898	5.908	1.00 62.51	G
20	ATOM	2528	C11	GLC	G	8	52.447	20.871	5.063	1.00 63.42	G
	ATOM	2529	C13	GLC	G	8	51.476	20.597	3.908	1.00 64.28	G
	ATOM	2530	O14	GLC	G	8	51.297	21.794	3.150	1.00 66.28	G
	ATOM	2531	C15	GLC	G	8	50.121	20.137	4.448	1.00 64.49	G
	ATOM	2532	O16	GLC	G	8	49.233	19.886	3.357	1.00 64.01	G
25	ATOM	2533	O12	GLC	G	10	36.044	37.499	29.523	1.00 56.89	G
	ATOM	2534	C11	GLC	G	10	35.164	36.645	30.259	1.00 56.97	G
	ATOM	2535	C13	GLC	G	10	33.849	36.489	29.494	1.00 56.11	G
	ATOM	2536	O14	GLC	G	10	33.248	37.772	29.308	1.00 56.44	G
	ATOM	2537	C15	GLC	G	10	32.900	35.580	30.277	1.00 55.84	G
30	ATOM	2538	O16	GLC	G	10	31.674	35.442	29.557	1.00 55.39	G
	ATOM	2539	O3G	ATP	N	1	46.280	25.658	5.170	1.00 51.49	N
	ATOM	2540	PG	ATP	N	1	46.464	25.053	3.691	1.00 52.22	N
	ATOM	2541	O1G	ATP	N	1	47.406	23.911	3.763	1.00 51.41	N
	ATOM	2542	O2G	ATP	N	1	46.794	26.182	2.784	1.00 52.07	N
35	ATOM	2543	O3B	ATP	N	1	44.976	24.513	3.344	1.00 51.01	N
	ATOM	2544	PB	ATP	N	1	44.560	22.969	3.605	1.00 50.20	N
	ATOM	2545	O1B	ATP	N	1	43.083	22.898	3.669	1.00 49.41	N
	ATOM	2546	O2B	ATP	N	1	45.345	22.474	4.766	1.00 50.34	N
	ATOM	2547	O3A	ATP	N	1	45.070	22.231	2.255	1.00 47.77	N
40	ATOM	2548	PA	ATP	N	1	45.075	20.613	2.121	1.00 42.84	N
	ATOM	2549	O1A	ATP	N	1	45.547	20.291	0.754	1.00 43.81	N
	ATOM	2550	O2A	ATP	N	1	45.807	20.035	3.270	1.00 45.03	N
	ATOM	2551	O5*	ATP	N	1	43.516	20.223	2.245	1.00 41.73	N
	ATOM	2552	C5*	ATP	N	1	42.528	20.925	1.489	1.00 37.57	N
45	ATOM	2553	C4*	ATP	N	1	41.127	20.379	1.776	1.00 39.45	N
	ATOM	2554	O4*	ATP	N	1	40.907	19.024	1.279	1.00 37.72	N
	ATOM	2555	C3*	ATP	N	1	40.777	20.321	3.251	1.00 38.48	N
	ATOM	2556	O3*	ATP	N	1	40.360	21.615	3.697	1.00 40.42	N
	ATOM	2557	C2*	ATP	N	1	39.608	19.374	3.270	1.00 37.58	N
50	ATOM	2558	O2*	ATP	N	1	38.410	20.076	2.924	1.00 35.98	N
	ATOM	2559	C1*	ATP	N	1	39.939	18.346	2.173	1.00 35.55	N
	ATOM	2560	N9	ATP	N	1	40.628	17.156	2.747	1.00 31.76	N
	ATOM	2561	C8	ATP	N	1	41.864	17.126	3.274	1.00 30.49	N
	ATOM	2562	N7	ATP	N	1	42.143	15.877	3.667	1.00 29.75	N
55	ATOM	2563	C5	ATP	N	1	41.088	15.118	3.390	1.00 27.49	N
	ATOM	2564	C4	ATP	N	1	40.125	15.925	2.810	1.00 30.02	N
	ATOM	2565	N3	ATP	N	1	38.937	15.389	2.431	1.00 27.11	N
	ATOM	2566	C2	ATP	N	1	38.679	14.085	2.615	1.00 25.62	N
	ATOM	2567	N1	ATP	N	1	39.597	13.283	3.175	1.00 21.76	N

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      ATOM    2568  C6   ATP N   1    40.800  13.768   3.571  1.00 23.90        N
      ATOM    2569  N6   ATP N   1    41.698  12.964   4.127  1.00 21.94        N
      ATOM    2570  S    SO4 I   1    58.680   8.493  -0.639  1.00 56.05        I
      ATOM    2571  O1   SO4 I   1    57.956   7.875   0.483  1.00 58.83        I
  5   ATOM    2572  O2   SO4 I   1    57.886   9.607  -1.188  1.00 57.04        I
      ATOM    2573  O3   SO4 I   1    58.906   7.478  -1.683  1.00 57.47        I
      ATOM    2574  O4   SO4 I   1    59.976   9.008  -0.156  1.00 57.51        I
      ATOM    2575  S    SO4 I   2    39.339   4.855   7.057  1.00 84.24        I
      ATOM    2576  O1   SO4 I   2    39.390   6.175   7.711  1.00 85.02        I
 10   ATOM    2577  O2   SO4 I   2    40.101   4.897   5.797  1.00 84.75        I
      ATOM    2578  O3   SO4 I   2    37.936   4.506   6.766  1.00 84.94        I
      ATOM    2579  O4   SO4 I   2    39.931   3.842   7.954  1.00 84.44        I
      ATOM    2580  S    SO4 I   3    38.987  -2.256   3.310  1.00 58.58        I
      ATOM    2581  O1   SO4 I   3    37.734  -1.675   3.827  1.00 59.11        I
 15   ATOM    2582  O2   SO4 I   3    39.460  -1.454   2.172  1.00 59.91        I
      ATOM    2583  O3   SO4 I   3    38.743  -3.640   2.866  1.00 60.97        I
      ATOM    2584  O4   SO4 I   3    40.014  -2.260   4.369  1.00 59.58        I
      ATOM    2585  S    SO4 I   4    34.397   5.289  30.981  1.00 64.34        I
      ATOM    2586  O1   SO4 I   4    33.627   6.528  30.742  1.00 60.43        I
 20   ATOM    2587  O2   SO4 I   4    34.337   4.427  29.782  1.00 60.11        I
      ATOM    2588  O3   SO4 I   4    33.816   4.572  32.133  1.00 64.39        I
      ATOM    2589  O4   SO4 I   4    35.806   5.626  31.277  1.00 63.55        I
      ATOM    2590  S    SO4 I   5    55.074  -6.984  -3.711  1.00 75.40        I
      ATOM    2591  O1   SO4 I   5    54.657  -7.518  -2.399  1.00 74.66        I
 25   ATOM    2592  O2   SO4 I   5    54.209  -5.845  -4.065  1.00 74.96        I
      ATOM    2593  O3   SO4 I   5    54.950  -8.034  -4.742  1.00 74.22        I
      ATOM    2594  O4   SO4 I   5    56.477  -6.532  -3.633  1.00 75.15        I
      ATOM    2595  O2   PO4 P 100    57.362  24.998  13.149  1.00 66.76        P
      ATOM    2596  O3   PO4 P 100    59.399  26.166  13.761  1.00 66.89        P
 30   ATOM    2597  O4   PO4 P 100    57.761  25.606  15.462  1.00 67.43        P
      ATOM    2598  O1   PO4 P 100    57.264  27.325  13.818  1.00 65.91        P
      ATOM    2599  P    PO4 P 100    57.947  26.025  14.048  1.00 66.69        P
      END
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 35

Example 4: Co-ordinates for the dimer of the PDK1 fragment, without alternate side chains. Chain A is the molecule for which co-ordinates are given in Examples 2 and 3, and chain B is the symmetry-related molecule.

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      ATOM       1  CB   PRO A  71    58.912  -7.251   8.216  1.00 67.78        A
 40   ATOM       2  CG   PRO A  71    59.621  -6.941   9.534  1.00 69.16        A
      ATOM       3  C    PRO A  71    59.493  -6.506   5.894  1.00 67.06        A
      ATOM       4  O    PRO A  71    59.196  -5.318   5.766  1.00 66.66        A
      ATOM       5  N    PRO A  71    60.984  -6.073   7.833  1.00 67.86        A
      ATOM       6  CD   PRO A  71    60.554  -5.762   9.207  1.00 68.24        A
 45   ATOM       7  CA   PRO A  71    60.040  -7.035   7.217  1.00 67.75        A
      ATOM       8  N    PRO A  72    59.356  -7.385   4.890  1.00 66.32        A
      ATOM       9  CD   PRO A  72    59.712  -8.816   4.898  1.00 67.17        A
      ATOM      10  CA   PRO A  72    58.840  -6.986   3.578  1.00 65.61        A
      ATOM      11  CB   PRO A  72    58.672  -8.321   2.858  1.00 66.47        A
 50   ATOM      12  CG   PRO A  72    59.796  -9.133   3.419  1.00 67.57        A
      ATOM      13  C    PRO A  72    57.527  -6.208   3.673  1.00 63.94        A
      ATOM      14  O    PRO A  72    56.710  -6.451   4.561  1.00 64.11        A
      ATOM      15  N    ALA A  73    57.341  -5.268   2.753  1.00 61.57        A
      ATOM      16  CA   ALA A  73    56.133  -4.454   2.708  1.00 58.74        A
 55   ATOM      17  CB   ALA A  73    56.438  -3.030   3.165  1.00 58.05        A
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	ATOM	18	C	ALA A	73	55.626	-4.448	1.271	1.00	56.78	A
	ATOM	19	O	ALA A	73	56.347	-4.834	0.349	1.00	56.95	A
	ATOM	20	N	PRO A	74	54.372	-4.024	1.057	1.00	54.15	A
	ATOM	21	CD	PRO A	74	53.335	-3.610	2.018	1.00	53.31	A
5	ATOM	22	CA	PRO A	74	53.856	-4.003	-0.314	1.00	52.54	A
	ATOM	23	CB	PRO A	74	52.474	-3.375	-0.148	1.00	52.86	A
	ATOM	24	CG	PRO A	74	52.067	-3.824	1.226	1.00	52.88	A
	ATOM	25	C	PRO A	74	54.772	-3.167	-1.204	1.00	50.08	A
	ATOM	26	O	PRO A	74	55.559	-2.361	-0.708	1.00	49.96	A
10	ATOM	27	N	ALA A	75	54.680	-3.366	-2.514	1.00	47.58	A
	ATOM	28	CA	ALA A	75	55.503	-2.602	-3.446	1.00	44.69	A
	ATOM	29	CB	ALA A	75	55.312	-3.121	-4.870	1.00	46.14	A
	ATOM	30	C	ALA A	75	55.100	-1.134	-3.371	1.00	41.55	A
	ATOM	31	O	ALA A	75	53.947	-0.813	-3.086	1.00	41.01	A
15	ATOM	32	N	LYS A	76	56.053	-0.245	-3.619	1.00	38.31	A
	ATOM	33	CA	LYS A	76	55.781	1.184	-3.588	1.00	35.72	A
	ATOM	34	CB	LYS A	76	57.053	1.957	-3.930	1.00	37.70	A
	ATOM	35	CG	LYS A	76	57.123	3.356	-3.350	1.00	40.99	A
	ATOM	36	CD	LYS A	76	57.262	3.316	-1.836	1.00	40.04	A
20	ATOM	37	CE	LYS A	76	57.511	4.705	-1.277	1.00	42.08	A
	ATOM	38	NZ	LYS A	76	57.681	4.695	0.202	1.00	42.99	A
	ATOM	39	C	LYS A	76	54.708	1.467	-4.638	1.00	32.65	A
	ATOM	40	O	LYS A	76	54.814	1.005	-5.770	1.00	31.41	A
	ATOM	41	N	LYS A	77	53.668	2.207	-4.270	1.00	28.59	A
25	ATOM	42	CA	LYS A	77	52.619	2.517	-5.232	1.00	25.72	A
	ATOM	43	CB	LYS A	77	51.316	2.865	-4.509	1.00	26.22	A
	ATOM	44	CG	LYS A	77	50.796	1.731	-3.631	1.00	27.15	A
	ATOM	45	CD	LYS A	77	49.487	2.089	-2.967	1.00	26.80	A
	ATOM	46	CE	LYS A	77	49.136	1.091	-1.870	1.00	27.31	A
30	ATOM	47	NZ	LYS A	77	48.998	-0.296	-2.380	1.00	27.17	A
	ATOM	48	C	LYS A	77	53.053	3.668	-6.137	1.00	24.67	A
	ATOM	49	O	LYS A	77	54.010	4.377	-5.829	1.00	21.60	A
	ATOM	50	N	ARG A	78	52.351	3.838	-7.254	1.00	23.66	A
	ATOM	51	CA	ARG A	78	52.662	4.897	-8.211	1.00	26.14	A
35	ATOM	52	CB	ARG A	78	53.574	4.344	-9.318	1.00	28.57	A
	ATOM	53	CG	ARG A	78	53.017	3.139	-10.050	1.00	34.78	A
	ATOM	54	CD	ARG A	78	54.092	2.465	-10.896	1.00	40.96	A
	ATOM	55	NE	ARG A	78	53.560	1.364	-11.700	1.00	48.93	A
	ATOM	56	CZ	ARG A	78	52.985	0.270	-11.203	1.00	52.58	A
40	ATOM	57	NH1	ARG A	78	52.860	0.113	-9.889	1.00	54.60	A
	ATOM	58	NH2	ARG A	78	52.530	-0.672	-12.022	1.00	54.09	A
	ATOM	59	C	ARG A	78	51.382	5.488	-8.803	1.00	23.76	A
	ATOM	60	O	ARG A	78	50.311	4.888	-8.706	1.00	24.25	A
	ATOM	61	N	PRO A	79	51.475	6.676	-9.428	1.00	21.76	A
45	ATOM	62	CD	PRO A	79	52.691	7.475	-9.668	1.00	20.82	A
	ATOM	63	CA	PRO A	79	50.301	7.325	-10.021	1.00	21.96	A
	ATOM	64	CB	PRO A	79	50.910	8.481	-10.816	1.00	22.27	A
	ATOM	65	CG	PRO A	79	52.124	8.831	-10.014	1.00	22.12	A
	ATOM	66	C	PRO A	79	49.446	6.413	-10.903	1.00	22.86	A
50	ATOM	67	O	PRO A	79	48.213	6.461	-10.842	1.00	20.52	A
	ATOM	68	N	GLU A	80	50.103	5.586	-11.714	1.00	21.87	A
	ATOM	69	CA	GLU A	80	49.403	4.685	-12.628	1.00	22.99	A
	ATOM	70	CB	GLU A	80	50.393	3.994	-13.571	1.00	25.24	A
	ATOM	71	CG	GLU A	80	51.230	2.907	-12.925	1.00	28.75	A
55	ATOM	72	CD	GLU A	80	52.157	2.224	-13.913	1.00	31.99	A
	ATOM	73	OE1	GLU A	80	53.072	2.897	-14.433	1.00	34.34	A
	ATOM	74	OE2	GLU A	80	51.969	1.015	-14.172	1.00	32.83	A
	ATOM	75	C	GLU A	80	48.556	3.631	-11.912	1.00	22.09	A
	ATOM	76	O	GLU A	80	47.692	3.013	-12.530	1.00	22.37	A

	ATOM	77	N	ASP	A	81	48.804	3.413	-10.622	1.00	19.97	A
	ATOM	78	CA	ASP	A	81	48.026	2.423	-9.874	1.00	19.93	A
	ATOM	79	CB	ASP	A	81	48.736	2.029	-8.571	1.00	21.19	A
	ATOM	80	CG	ASP	A	81	50.089	1.380	-8.807	1.00	22.46	A
5	ATOM	81	OD1	ASP	A	81	50.195	0.554	-9.731	1.00	24.22	A
	ATOM	82	OD2	ASP	A	81	51.043	1.685	-8.058	1.00	23.33	A
	ATOM	83	C	ASP	A	81	46.652	2.975	-9.518	1.00	20.85	A
	ATOM	84	O	ASP	A	81	45.793	2.246	-9.015	1.00	19.96	A
	ATOM	85	N	PHE	A	82	46.445	4.258	-9.804	1.00	18.91	A
10	ATOM	86	CA	PHE	A	82	45.200	4.934	-9.465	1.00	19.30	A
	ATOM	87	CB	PHE	A	82	45.475	6.027	-8.427	1.00	18.43	A
	ATOM	88	CG	PHE	A	82	46.134	5.531	-7.175	1.00	18.01	A
	ATOM	89	CD1	PHE	A	82	45.371	5.136	-6.084	1.00	17.19	A
	ATOM	90	CD2	PHE	A	82	47.520	5.460	-7.086	1.00	18.99	A
15	ATOM	91	CE1	PHE	A	82	45.977	4.676	-4.918	1.00	17.12	A
	ATOM	92	CE2	PHE	A	82	48.137	5.000	-5.925	1.00	19.64	A
	ATOM	93	CZ	PHE	A	82	47.361	4.607	-4.838	1.00	18.00	A
	ATOM	94	C	PHE	A	82	44.476	5.596	-10.621	1.00	20.81	A
	ATOM	95	O	PHE	A	82	45.066	5.933	-11.649	1.00	20.34	A
20	ATOM	96	N	LYS	A	83	43.182	5.792	-10.411	1.00	19.80	A
	ATOM	97	CA	LYS	A	83	42.321	6.478	-11.353	1.00	21.65	A
	ATOM	98	CB	LYS	A	83	41.096	5.625	-11.687	1.00	22.02	A
	ATOM	99	CG	LYS	A	83	40.062	6.326	-12.550	1.00	28.93	A
	ATOM	100	CD	LYS	A	83	38.974	5.355	-12.981	1.00	34.20	A
25	ATOM	101	CE	LYS	A	83	37.909	6.042	-13.824	1.00	38.10	A
	ATOM	102	NZ	LYS	A	83	37.179	7.086	-13.043	1.00	43.33	A
	ATOM	103	C	LYS	A	83	41.913	7.702	-10.541	1.00	20.74	A
	ATOM	104	O	LYS	A	83	41.084	7.606	-9.635	1.00	20.98	A
	ATOM	105	N	PHE	A	84	42.513	8.848	-10.835	1.00	19.99	A
30	ATOM	106	CA	PHE	A	84	42.188	10.049	-10.083	1.00	18.63	A
	ATOM	107	CB	PHE	A	84	43.279	11.103	-10.258	1.00	18.95	A
	ATOM	108	CG	PHE	A	84	44.571	10.741	-9.587	1.00	17.68	A
	ATOM	109	CD1	PHE	A	84	45.498	9.926	-10.224	1.00	18.16	A
	ATOM	110	CD2	PHE	A	84	44.843	11.183	-8.299	1.00	19.66	A
35	ATOM	111	CE1	PHE	A	84	46.676	9.556	-9.589	1.00	18.09	A
	ATOM	112	CE2	PHE	A	84	46.021	10.816	-7.653	1.00	18.89	A
	ATOM	113	CZ	PHE	A	84	46.936	10.002	-8.301	1.00	17.33	A
	ATOM	114	C	PHE	A	84	40.834	10.617	-10.460	1.00	19.69	A
	ATOM	115	O	PHE	A	84	40.391	10.489	-11.601	1.00	20.72	A
40	ATOM	116	N	GLY	A	85	40.178	11.233	-9.484	1.00	16.80	A
	ATOM	117	CA	GLY	A	85	38.872	11.810	-9.716	1.00	17.73	A
	ATOM	118	C	GLY	A	85	38.819	13.280	-9.346	1.00	18.75	A
	ATOM	119	O	GLY	A	85	39.740	14.043	-9.650	1.00	18.45	A
	ATOM	120	N	LYS	A	86	37.753	13.673	-8.659	1.00	16.00	A
45	ATOM	121	CA	LYS	A	86	37.571	15.064	-8.278	1.00	18.26	A
	ATOM	122	CB	LYS	A	86	36.133	15.302	-7.812	1.00	19.00	A
	ATOM	123	CG	LYS	A	86	35.793	14.660	-6.481	1.00	21.55	A
	ATOM	124	CD	LYS	A	86	34.368	14.981	-6.066	1.00	26.48	A
	ATOM	125	CE	LYS	A	86	33.994	14.239	-4.793	1.00	31.92	A
50	ATOM	126	NZ	LYS	A	86	32.568	14.457	-4.412	1.00	35.36	A
	ATOM	127	C	LYS	A	86	38.523	15.571	-7.202	1.00	18.57	A
	ATOM	128	O	LYS	A	86	39.045	14.807	-6.385	1.00	16.77	A
	ATOM	129	N	ILE	A	87	38.737	16.881	-7.227	1.00	17.88	A
	ATOM	130	CA	ILE	A	87	39.577	17.554	-6.256	1.00	18.26	A
55	ATOM	131	CB	ILE	A	87	39.994	18.952	-6.772	1.00	19.60	A
	ATOM	132	CG2	ILE	A	87	40.593	19.786	-5.628	1.00	18.73	A
	ATOM	133	CG1	ILE	A	87	40.968	18.786	-7.945	1.00	21.16	A
	ATOM	134	CD1	ILE	A	87	41.412	20.087	-8.588	1.00	25.26	A
	ATOM	135	C	ILE	A	87	38.731	17.709	-4.997	1.00	19.67	A

	ATOM	136	O	ILE A	87	37.628	18.249	-5.052	1.00	20.41	A
	ATOM	137	N	LEU A	88	39.240	17.229	-3.867	1.00	19.15	A
	ATOM	138	CA	LEU A	88	38.508	17.324	-2.611	1.00	20.68	A
	ATOM	139	CB	LEU A	88	38.870	16.151	-1.700	1.00	19.97	A
5	ATOM	140	CG	LEU A	88	38.529	14.759	-2.237	1.00	19.24	A
	ATOM	141	CD1	LEU A	88	39.090	13.692	-1.311	1.00	21.41	A
	ATOM	142	CD2	LEU A	88	37.029	14.622	-2.359	1.00	18.84	A
	ATOM	143	C	LEU A	88	38.815	18.632	-1.901	1.00	23.11	A
	ATOM	144	O	LEU A	88	37.999	19.146	-1.139	1.00	25.10	A
10	ATOM	145	N	GLY A	89	39.997	19.174	-2.149	1.00	24.09	A
	ATOM	146	CA	GLY A	89	40.367	20.418	-1.507	1.00	24.27	A
	ATOM	147	C	GLY A	89	41.658	20.954	-2.078	1.00	25.47	A
	ATOM	148	O	GLY A	89	42.445	20.202	-2.666	1.00	22.19	A
	ATOM	149	N	GLU A	90	41.870	22.254	-1.906	1.00	26.22	A
15	ATOM	150	CA	GLU A	90	43.064	22.924	-2.404	1.00	29.96	A
	ATOM	151	CB	GLU A	90	42.698	23.814	-3.596	1.00	30.75	A
	ATOM	152	CG	GLU A	90	42.267	23.038	-4.831	1.00	34.32	A
	ATOM	153	CD	GLU A	90	41.711	23.930	-5.927	1.00	38.27	A
	ATOM	154	OE1	GLU A	90	40.590	24.456	-5.764	1.00	40.57	A
20	ATOM	155	OE2	GLU A	90	42.398	24.110	-6.952	1.00	40.90	A
	ATOM	156	C	GLU A	90	43.711	23.768	-1.313	1.00	30.68	A
	ATOM	157	O	GLU A	90	43.049	24.574	-0.668	1.00	32.83	A
	ATOM	158	N	GLY A	91	45.006	23.566	-1.104	1.00	29.66	A
	ATOM	159	CA	GLY A	91	45.724	24.332	-0.104	1.00	29.40	A
25	ATOM	160	C	GLY A	91	46.795	25.151	-0.798	1.00	29.98	A
	ATOM	161	O	GLY A	91	46.894	25.130	-2.028	1.00	28.16	A
	ATOM	162	N	SER A	92	47.605	25.870	-0.029	1.00	28.30	A
	ATOM	163	CA	SER A	92	48.653	26.681	-0.633	1.00	30.50	A
	ATOM	164	CB	SER A	92	49.165	27.717	0.370	1.00	32.43	A
30	ATOM	165	OG	SER A	92	49.520	27.099	1.593	1.00	40.94	A
	ATOM	166	C	SER A	92	49.815	25.843	-1.164	1.00	29.77	A
	ATOM	167	O	SER A	92	50.456	26.221	-2.143	1.00	30.46	A
	ATOM	168	N	PHE A	93	50.087	24.703	-0.536	1.00	27.65	A
	ATOM	169	CA	PHE A	93	51.185	23.855	-0.995	1.00	26.34	A
35	ATOM	170	CB	PHE A	93	52.281	23.785	0.068	1.00	27.95	A
	ATOM	171	CG	PHE A	93	52.861	25.117	0.406	1.00	31.06	A
	ATOM	172	CD1	PHE A	93	52.283	25.909	1.392	1.00	29.96	A
	ATOM	173	CD2	PHE A	93	53.949	25.613	-0.308	1.00	31.38	A
	ATOM	174	CE1	PHE A	93	52.779	27.181	1.665	1.00	32.69	A
40	ATOM	175	CE2	PHE A	93	54.452	26.883	-0.044	1.00	32.63	A
	ATOM	176	CZ	PHE A	93	53.864	27.670	0.945	1.00	31.81	A
	ATOM	177	C	PHE A	93	50.759	22.445	-1.365	1.00	25.39	A
	ATOM	178	O	PHE A	93	51.601	21.559	-1.522	1.00	24.59	A
	ATOM	179	N	SER A	94	49.457	22.235	-1.519	1.00	23.63	A
45	ATOM	180	CA	SER A	94	48.965	20.912	-1.860	1.00	21.43	A
	ATOM	181	CB	SER A	94	49.017	20.013	-0.628	1.00	21.42	A
	ATOM	182	OG	SER A	94	48.091	20.475	0.340	1.00	21.19	A
	ATOM	183	C	SER A	94	47.539	20.925	-2.378	1.00	19.82	A
	ATOM	184	O	SER A	94	46.795	21.882	-2.173	1.00	18.76	A
50	ATOM	185	N	THR A	95	47.174	19.832	-3.038	1.00	19.38	A
	ATOM	186	CA	THR A	95	45.840	19.637	-3.580	1.00	17.98	A
	ATOM	187	CB	THR A	95	45.818	19.818	-5.110	1.00	19.25	A
	ATOM	188	OG1	THR A	95	46.196	21.162	-5.434	1.00	22.04	A
	ATOM	189	CG2	THR A	95	44.421	19.549	-5.661	1.00	17.61	A
55	ATOM	190	C	THR A	95	45.455	18.201	-3.243	1.00	18.61	A
	ATOM	191	O	THR A	95	46.212	17.264	-3.524	1.00	17.10	A
	ATOM	192	N	VAL A	96	44.295	18.024	-2.623	1.00	16.53	A
	ATOM	193	CA	VAL A	96	43.845	16.685	-2.266	1.00	16.05	A
	ATOM	194	CB	VAL A	96	43.170	16.672	-0.886	1.00	16.32	A

	ATOM	195	CG1	VAL A	96	42.741	15.249	-0.532	1.00	18.02	A
	ATOM	196	CG2	VAL A	96	44.145	17.206	0.168	1.00	16.69	A
	ATOM	197	C	VAL A	96	42.875	16.207	-3.335	1.00	16.42	A
	ATOM	198	O	VAL A	96	41.906	16.892	-3.665	1.00	16.47	A
5	ATOM	199	N	VAL A	97	43.157	15.033	-3.888	1.00	16.80	A
	ATOM	200	CA	VAL A	97	42.338	14.471	-4.949	1.00	16.72	A
	ATOM	201	CB	VAL A	97	43.153	14.354	-6.255	1.00	18.43	A
	ATOM	202	CG1	VAL A	97	42.249	13.927	-7.404	1.00	19.69	A
	ATOM	203	CG2	VAL A	97	43.831	15.685	-6.569	1.00	17.84	A
10	ATOM	204	C	VAL A	97	41.812	13.091	-4.583	1.00	16.77	A
	ATOM	205	O	VAL A	97	42.532	12.270	-4.014	1.00	17.13	A
	ATOM	206	N	LEU A	98	40.545	12.845	-4.895	1.00	16.62	A
	ATOM	207	CA	LEU A	98	39.947	11.548	-4.624	1.00	17.04	A
	ATOM	208	CB	LEU A	98	38.424	11.633	-4.743	1.00	16.89	A
15	ATOM	209	CG	LEU A	98	37.635	10.342	-4.508	1.00	19.46	A
	ATOM	210	CD1	LEU A	98	37.990	9.762	-3.146	1.00	20.07	A
	ATOM	211	CD2	LEU A	98	36.143	10.627	-4.588	1.00	17.93	A
	ATOM	212	C	LEU A	98	40.512	10.597	-5.677	1.00	17.38	A
	ATOM	213	O	LEU A	98	40.527	10.920	-6.863	1.00	18.60	A
20	ATOM	214	N	ALA A	99	40.995	9.438	-5.246	1.00	17.13	A
	ATOM	215	CA	ALA A	99	41.570	8.466	-6.168	1.00	18.42	A
	ATOM	216	CB	ALA A	99	43.090	8.524	-6.105	1.00	14.76	A
	ATOM	217	C	ALA A	99	41.102	7.055	-5.848	1.00	21.40	A
	ATOM	218	O	ALA A	99	40.941	6.691	-4.679	1.00	22.52	A
25	ATOM	219	N	ARG A	100	40.878	6.261	-6.888	1.00	19.77	A
	ATOM	220	CA	ARG A	100	40.459	4.884	-6.693	1.00	20.85	A
	ATOM	221	CB	ARG A	100	39.202	4.585	-7.518	1.00	24.22	A
	ATOM	222	CG	ARG A	100	38.608	3.205	-7.256	1.00	31.78	A
	ATOM	223	CD	ARG A	100	37.326	2.979	-8.048	1.00	36.24	A
30	ATOM	224	NE	ARG A	100	36.213	3.818	-7.594	1.00	41.40	A
	ATOM	225	CZ	ARG A	100	35.566	3.662	-6.439	1.00	42.05	A
	ATOM	226	NH1	ARG A	100	35.912	2.696	-5.598	1.00	40.67	A
	ATOM	227	NH2	ARG A	100	34.559	4.468	-6.128	1.00	43.65	A
	ATOM	228	C	ARG A	100	41.613	3.985	-7.129	1.00	18.63	A
35	ATOM	229	O	ARG A	100	42.078	4.065	-8.271	1.00	19.49	A
	ATOM	230	N	GLU A	101	42.102	3.157	-6.212	1.00	16.43	A
	ATOM	231	CA	GLU A	101	43.196	2.246	-6.533	1.00	16.11	A
	ATOM	232	CB	GLU A	101	43.774	1.637	-5.248	1.00	16.79	A
	ATOM	233	CG	GLU A	101	44.917	0.657	-5.488	1.00	16.51	A
40	ATOM	234	CD	GLU A	101	45.501	0.115	-4.200	1.00	18.20	A
	ATOM	235	OE1	GLU A	101	44.733	-0.081	-3.239	1.00	18.32	A
	ATOM	236	OE2	GLU A	101	46.725	-0.132	-4.150	1.00	17.14	A
	ATOM	237	C	GLU A	101	42.625	1.152	-7.442	1.00	17.92	A
	ATOM	238	O	GLU A	101	41.681	0.462	-7.069	1.00	18.02	A
45	ATOM	239	N	LEU A	102	43.198	1.002	-8.632	1.00	19.06	A
	ATOM	240	CA	LEU A	102	42.718	0.025	-9.607	1.00	20.71	A
	ATOM	241	CB	LEU A	102	43.569	0.097	-10.878	1.00	23.42	A
	ATOM	242	CG	LEU A	102	43.531	1.426	-11.642	1.00	25.30	A
	ATOM	243	CD1	LEU A	102	44.577	1.414	-12.748	1.00	27.88	A
50	ATOM	244	CD2	LEU A	102	42.140	1.647	-12.214	1.00	26.79	A
	ATOM	245	C	LEU A	102	42.671	-1.418	-9.125	1.00	21.62	A
	ATOM	246	O	LEU A	102	41.668	-2.103	-9.305	1.00	21.09	A
	ATOM	247	N	ALA A	103	43.753	-1.874	-8.507	1.00	19.38	A
	ATOM	248	CA	ALA A	103	43.836	-3.249	-8.035	1.00	20.87	A
55	ATOM	249	CB	ALA A	103	45.284	-3.571	-7.671	1.00	19.23	A
	ATOM	250	C	ALA A	103	42.919	-3.629	-6.872	1.00	19.92	A
	ATOM	251	O	ALA A	103	42.703	-4.815	-6.628	1.00	20.38	A
	ATOM	252	N	THR A	104	42.361	-2.643	-6.175	1.00	18.12	A
	ATOM	253	CA	THR A	104	41.517	-2.927	-5.018	1.00	17.15	A

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         ATOM   254   CB    THR A 104      42.212   -2.484   -3.717   1.00  19.54      A
         ATOM   255   OG1   THR A 104      42.456   -1.070   -3.773   1.00  19.26      A
         ATOM   256   CG2   THR A 104      43.536   -3.219   -3.529   1.00  17.02      A
         ATOM   257   C     THR A 104      40.159   -2.247   -5.026   1.00  19.44      A
    5    ATOM   258   O     THR A 104      39.259   -2.648   -4.285   1.00  18.70      A
         ATOM   259   N     SER A 105      40.034   -1.207   -5.847   1.00  19.65      A
         ATOM   260   CA    SER A 105      38.819   -0.400   -5.967   1.00  19.37      A
         ATOM   261   CB    SER A 105      37.598   -1.304   -6.173   1.00  21.81      A
         ATOM   262   OG    SER A 105      36.431   -0.539   -6.412   1.00  23.01      A
   10    ATOM   263   C     SER A 105      38.644    0.447   -4.701   1.00  18.99      A
         ATOM   264   O     SER A 105      37.602    1.070   -4.488   1.00  18.66      A
         ATOM   265   N     ARG A 106      39.674    0.468   -3.861   1.00  16.84      A
         ATOM   266   CA    ARG A 106      39.655    1.267   -2.634   1.00  16.21      A
         ATOM   267   CB    ARG A 106      40.827    0.886   -1.723   1.00  16.41      A
   15    ATOM   268   CG    ARG A 106      40.619   -0.367   -0.906   1.00  15.49      A
         ATOM   269   CD    ARG A 106      41.887   -0.755   -0.170   1.00  17.43      A
         ATOM   270   NE    ARG A 106      41.620   -1.792    0.824   1.00  20.47      A
         ATOM   271   CZ    ARG A 106      42.548   -2.568    1.371   1.00  20.24      A
         ATOM   272   NH1   ARG A 106      43.821   -2.433    1.017   1.00  17.80      A
   20    ATOM   273   NH2   ARG A 106      42.198   -3.468    2.285   1.00  20.14      A
         ATOM   274   C     ARG A 106      39.785    2.746   -2.981   1.00  17.37      A
         ATOM   275   O     ARG A 106      40.514    3.103   -3.902   1.00  17.75      A
         ATOM   276   N     GLU A 107      39.085    3.599   -2.240   1.00  16.06      A
         ATOM   277   CA    GLU A 107      39.156    5.039   -2.461   1.00  20.80      A
   25    ATOM   278   CB    GLU A 107      37.779    5.694   -2.337   1.00  22.93      A
         ATOM   279   CG    GLU A 107      36.711    5.171   -3.269   1.00  30.87      A
         ATOM   280   CD    GLU A 107      35.431    5.975   -3.148   1.00  32.40      A
         ATOM   281   OE1   GLU A 107      35.262    6.939   -3.923   1.00  33.74      A
         ATOM   282   OE2   GLU A 107      34.608    5.654   -2.263   1.00  36.00      A
   30    ATOM   283   C     GLU A 107      40.053    5.678   -1.410   1.00  18.93      A
         ATOM   284   O     GLU A 107      39.891    5.427   -0.220   1.00  19.21      A
         ATOM   285   N     TYR A 108      40.988    6.507   -1.852   1.00  16.70      A
         ATOM   286   CA    TYR A 108      41.883    7.209   -0.942   1.00  15.86      A
         ATOM   287   CB    TYR A 108      43.325    6.728   -1.104   1.00  15.30      A
   35    ATOM   288   CG    TYR A 108      43.593    5.328   -0.612   1.00  16.33      A
         ATOM   289   CD1   TYR A 108      43.765    5.066    0.746   1.00  16.36      A
         ATOM   290   CE1   TYR A 108      44.046    3.769    1.201   1.00  18.48      A
         ATOM   291   CD2   TYR A 108      43.701    4.268   -1.511   1.00  13.25      A
         ATOM   292   CE2   TYR A 108      43.980    2.981   -1.075   1.00  17.28      A
   40    ATOM   293   CZ    TYR A 108      44.152    2.736    0.276   1.00  19.17      A
         ATOM   294   OH    TYR A 108      44.440    1.461    0.688   1.00  19.38      A
         ATOM   295   C     TYR A 108      41.850    8.687   -1.292   1.00  16.80      A
         ATOM   296   O     TYR A 108      41.560    9.058   -2.431   1.00  15.22      A
         ATOM   297   N     ALA A 109      42.132    9.528   -0.306   1.00  14.61      A
   45    ATOM   298   CA    ALA A 109      42.207   10.957   -0.539   1.00  14.30      A
         ATOM   299   CB    ALA A 109      41.671   11.726    0.661   1.00  14.78      A
         ATOM   300   C     ALA A 109      43.713   11.136   -0.667   1.00  16.79      A
         ATOM   301   O     ALA A 109      44.450   10.983    0.317   1.00  16.52      A
         ATOM   302   N     ILE A 110      44.182   11.410   -1.881   1.00  14.80      A
   50    ATOM   303   CA    ILE A 110      45.609   11.574   -2.093   1.00  15.80      A
         ATOM   304   CB    ILE A 110      46.065   10.863   -3.396   1.00  16.85      A
         ATOM   305   CG2   ILE A 110      47.550   11.098   -3.632   1.00  16.80      A
         ATOM   306   CG1   ILE A 110      45.774    9.358   -3.284   1.00  17.76      A
         ATOM   307   CD1   ILE A 110      46.308    8.513   -4.437   1.00  16.07      A
   55    ATOM   308   C     ILE A 110      46.004   13.045   -2.129   1.00  17.78      A
         ATOM   309   O     ILE A 110      45.534   13.813   -2.976   1.00  16.24      A
         ATOM   310   N     LYS A 111      46.846   13.435   -1.177   1.00  16.15      A
         ATOM   311   CA    LYS A 111      47.326   14.808   -1.100   1.00  17.20      A
         ATOM   312   CB    LYS A 111      47.700   15.176    0.344   1.00  17.41      A
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	ATOM	313	CG	LYS	A	111	48.350	16.547	0.464	1.00 20.71	A
	ATOM	314	CD	LYS	A	111	48.585	16.971	1.910	1.00 24.25	A
	ATOM	315	CE	LYS	A	111	47.288	17.381	2.598	1.00 29.46	A
	ATOM	316	NZ	LYS	A	111	47.516	17.866	4.000	1.00 30.50	A
5	ATOM	317	C	LYS	A	111	48.551	14.890	-1.994	1.00 16.41	A
	ATOM	318	O	LYS	A	111	49.509	14.137	-1.813	1.00 18.20	A
	ATOM	319	N	ILE	A	112	48.509	15.798	-2.963	1.00 15.87	A
	ATOM	320	CA	ILE	A	112	49.606	15.967	-3.907	1.00 17.28	A
	ATOM	321	CB	ILE	A	112	49.079	15.911	-5.358	1.00 16.43	A
10	ATOM	322	CG2	ILE	A	112	50.235	15.998	-6.341	1.00 15.12	A
	ATOM	323	CG1	ILE	A	112	48.293	14.609	-5.565	1.00 16.82	A
	ATOM	324	CD1	ILE	A	112	47.580	14.511	-6.904	1.00 18.47	A
	ATOM	325	C	ILE	A	112	50.307	17.301	-3.663	1.00 19.03	A
	ATOM	326	O	ILE	A	112	49.669	18.350	-3.635	1.00 19.15	A
15	ATOM	327	N	LEU	A	113	51.622	17.245	-3.472	1.00 20.22	A
	ATOM	328	CA	LEU	A	113	52.416	18.442	-3.214	1.00 22.36	A
	ATOM	329	CB	LEU	A	113	52.995	18.397	-1.794	1.00 22.13	A
	ATOM	330	CG	LEU	A	113	52.042	18.063	-0.646	1.00 22.46	A
	ATOM	331	CD1	LEU	A	113	51.866	16.557	-0.553	1.00 23.81	A
20	ATOM	332	CD2	LEU	A	113	52.603	18.595	0.660	1.00 23.68	A
	ATOM	333	C	LEU	A	113	53.560	18.547	-4.215	1.00 23.37	A
	ATOM	334	O	LEU	A	113	54.300	17.586	-4.424	1.00 23.11	A
	ATOM	335	N	GLU	A	114	53.706	19.714	-4.834	1.00 23.88	A
	ATOM	336	CA	GLU	A	114	54.771	19.920	-5.806	1.00 26.00	A
25	ATOM	337	CB	GLU	A	114	54.435	21.111	-6.706	1.00 27.74	A
	ATOM	338	CG	GLU	A	114	55.533	21.452	-7.696	1.00 35.07	A
	ATOM	339	CD	GLU	A	114	55.220	22.696	-8.497	1.00 39.24	A
	ATOM	340	OE1	GLU	A	114	54.808	23.703	-7.885	1.00 41.45	A
	ATOM	341	OE2	GLU	A	114	55.395	22.670	-9.736	1.00 44.05	A
30	ATOM	342	C	GLU	A	114	56.087	20.163	-5.067	1.00 24.37	A
	ATOM	343	O	GLU	A	114	56.186	21.071	-4.238	1.00 24.43	A
	ATOM	344	N	LYS	A	115	57.096	19.350	-5.360	1.00 24.10	A
	ATOM	345	CA	LYS	A	115	58.376	19.493	-4.678	1.00 24.93	A
	ATOM	346	CB	LYS	A	115	59.339	18.373	-5.103	1.00 23.72	A
35	ATOM	347	CG	LYS	A	115	59.139	17.080	-4.308	1.00 23.09	A
	ATOM	348	CD	LYS	A	115	60.064	15.944	-4.743	1.00 21.92	A
	ATOM	349	CE	LYS	A	115	59.691	15.400	-6.117	1.00 22.42	A
	ATOM	350	NZ	LYS	A	115	60.447	14.150	-6.448	1.00 19.71	A
	ATOM	351	C	LYS	A	115	59.031	20.858	-4.868	1.00 26.87	A
40	ATOM	352	O	LYS	A	115	59.492	21.469	-3.903	1.00 26.17	A
	ATOM	353	N	ARG	A	116	59.058	21.348	-6.102	1.00 28.73	A
	ATOM	354	CA	ARG	A	116	59.678	22.638	-6.380	1.00 29.66	A
	ATOM	355	CB	ARG	A	116	59.533	22.980	-7.868	1.00 31.29	A
	ATOM	356	CG	ARG	A	116	60.047	24.361	-8.267	1.00 33.19	A
45	ATOM	357	CD	ARG	A	116	61.368	24.710	-7.590	1.00 35.13	A
	ATOM	358	NE	ARG	A	116	62.329	23.612	-7.618	1.00 36.42	A
	ATOM	359	CZ	ARG	A	116	63.510	23.648	-7.009	1.00 36.18	A
	ATOM	360	NH1	ARG	A	116	63.871	24.729	-6.332	1.00 36.12	A
	ATOM	361	NH2	ARG	A	116	64.324	22.602	-7.067	1.00 35.77	A
50	ATOM	362	C	ARG	A	116	59.097	23.761	-5.519	1.00 29.70	A
	ATOM	363	O	ARG	A	116	59.843	24.515	-4.889	1.00 29.16	A
	ATOM	364	N	HIS	A	117	57.773	23.862	-5.472	1.00 27.22	A
	ATOM	365	CA	HIS	A	117	57.126	24.903	-4.681	1.00 26.33	A
	ATOM	366	CB	HIS	A	117	55.606	24.835	-4.848	1.00 28.41	A
55	ATOM	367	CG	HIS	A	117	54.881	26.005	-4.258	1.00 31.82	A
	ATOM	368	CD2	HIS	A	117	55.309	27.249	-3.935	1.00 33.19	A
	ATOM	369	ND1	HIS	A	117	53.536	25.974	-3.961	1.00 34.30	A
	ATOM	370	CE1	HIS	A	117	53.165	27.148	-3.480	1.00 34.58	A
	ATOM	371	NE2	HIS	A	117	54.222	27.940	-3.455	1.00 35.18	A

	ATOM	372	C	HIS	A	117	57.477	24.780	-3.202	1.00	26.22	A
	ATOM	373	O	HIS	A	117	57.737	25.776	-2.534	1.00	25.67	A
	ATOM	374	N	ILE	A	118	57.469	23.554	-2.689	1.00	24.94	A
	ATOM	375	CA	ILE	A	118	57.792	23.315	-1.285	1.00	23.94	A
5	ATOM	376	CB	ILE	A	118	57.711	21.812	-0.952	1.00	23.50	A
	ATOM	377	CG2	ILE	A	118	58.374	21.533	0.389	1.00	23.76	A
	ATOM	378	CG1	ILE	A	118	56.246	21.362	-0.959	1.00	24.42	A
	ATOM	379	CD1	ILE	A	118	56.066	19.858	-0.834	1.00	28.06	A
	ATOM	380	C	ILE	A	118	59.195	23.821	-0.958	1.00	23.78	A
10	ATOM	381	O	ILE	A	118	59.402	24.495	0.048	1.00	23.49	A
	ATOM	382	N	ILE	A	119	60.153	23.489	-1.815	1.00	23.46	A
	ATOM	383	CA	ILE	A	119	61.534	23.913	-1.619	1.00	25.13	A
	ATOM	384	CB	ILE	A	119	62.467	23.250	-2.664	1.00	24.25	A
	ATOM	385	CG2	ILE	A	119	63.858	23.890	-2.617	1.00	22.47	A
15	ATOM	386	CG1	ILE	A	119	62.540	21.738	-2.395	1.00	25.05	A
	ATOM	387	CD1	ILE	A	119	63.327	20.945	-3.439	1.00	24.62	A
	ATOM	388	C	ILE	A	119	61.667	25.435	-1.705	1.00	25.96	A
	ATOM	389	O	ILE	A	119	62.330	26.051	-0.872	1.00	24.78	A
	ATOM	390	N	LYS	A	120	61.028	26.039	-2.704	1.00	27.67	A
20	ATOM	391	CA	LYS	A	120	61.100	27.489	-2.879	1.00	30.29	A
	ATOM	392	CB	LYS	A	120	60.242	27.940	-4.060	1.00	32.34	A
	ATOM	393	CG	LYS	A	120	60.674	27.407	-5.409	1.00	39.30	A
	ATOM	394	CD	LYS	A	120	59.765	27.950	-6.512	1.00	45.19	A
	ATOM	395	CE	LYS	A	120	58.294	27.636	-6.218	1.00	46.48	A
25	ATOM	396	NZ	LYS	A	120	57.363	28.155	-7.252	1.00	46.49	A
	ATOM	397	C	LYS	A	120	60.647	28.247	-1.638	1.00	30.89	A
	ATOM	398	O	LYS	A	120	61.303	29.198	-1.217	1.00	32.48	A
	ATOM	399	N	GLU	A	121	59.527	27.825	-1.055	1.00	29.82	A
	ATOM	400	CA	GLU	A	121	58.986	28.488	0.128	1.00	30.33	A
30	ATOM	401	CB	GLU	A	121	57.455	28.416	0.117	1.00	33.04	A
	ATOM	402	CG	GLU	A	121	56.794	29.021	-1.120	1.00	36.45	A
	ATOM	403	CD	GLU	A	121	57.221	30.456	-1.373	1.00	39.88	A
	ATOM	404	OE1	GLU	A	121	57.200	31.264	-0.420	1.00	40.53	A
	ATOM	405	OE2	GLU	A	121	57.573	30.778	-2.529	1.00	43.24	A
35	ATOM	406	C	GLU	A	121	59.511	27.930	1.451	1.00	30.37	A
	ATOM	407	O	GLU	A	121	58.946	28.204	2.513	1.00	31.24	A
	ATOM	408	N	ASN	A	122	60.588	27.151	1.390	1.00	29.03	A
	ATOM	409	CA	ASN	A	122	61.183	26.573	2.594	1.00	28.46	A
	ATOM	410	CB	ASN	A	122	61.836	27.673	3.436	1.00	31.28	A
40	ATOM	411	CG	ASN	A	122	62.945	28.395	2.698	1.00	34.12	A
	ATOM	412	OD1	ASN	A	122	62.697	29.143	1.754	1.00	35.57	A
	ATOM	413	ND2	ASN	A	122	64.181	28.169	3.127	1.00	35.73	A
	ATOM	414	C	ASN	A	122	60.157	25.835	3.456	1.00	26.89	A
	ATOM	415	O	ASN	A	122	60.085	26.055	4.663	1.00	27.23	A
45	ATOM	416	N	LYS	A	123	59.375	24.955	2.842	1.00	23.99	A
	ATOM	417	CA	LYS	A	123	58.358	24.210	3.574	1.00	22.43	A
	ATOM	418	CB	LYS	A	123	57.031	24.248	2.810	1.00	21.97	A
	ATOM	419	CG	LYS	A	123	56.475	25.645	2.599	1.00	25.68	A
	ATOM	420	CD	LYS	A	123	56.253	26.354	3.927	1.00	27.54	A
50	ATOM	421	CE	LYS	A	123	55.822	27.796	3.716	1.00	31.30	A
	ATOM	422	NZ	LYS	A	123	55.756	28.540	5.004	1.00	33.21	A
	ATOM	423	C	LYS	A	123	58.748	22.759	3.821	1.00	22.20	A
	ATOM	424	O	LYS	A	123	57.924	21.960	4.264	1.00	22.50	A
	ATOM	425	N	VAL	A	124	59.997	22.412	3.535	1.00	20.59	A
55	ATOM	426	CA	VAL	A	124	60.439	21.039	3.730	1.00	20.25	A
	ATOM	427	CB	VAL	A	124	61.922	20.850	3.328	1.00	19.43	A
	ATOM	428	CG1	VAL	A	124	62.346	19.407	3.573	1.00	18.69	A
	ATOM	429	CG2	VAL	A	124	62.104	21.195	1.853	1.00	18.21	A
	ATOM	430	C	VAL	A	124	60.236	20.561	5.163	1.00	19.53	A

	ATOM	431	O	VAL	A	124	59.841	19.418	5.385	1.00 20.02	A
	ATOM	432	N	PRO	A	125	60.513	21.422	6.159	1.00 20.01	A
	ATOM	433	CD	PRO	A	125	61.178	22.738	6.118	1.00 18.69	A
	ATOM	434	CA	PRO	A	125	60.318	20.979	7.544	1.00 19.88	A
5	ATOM	435	CB	PRO	A	125	60.793	22.180	8.363	1.00 19.95	A
	ATOM	436	CG	PRO	A	125	61.839	22.805	7.479	1.00 18.85	A
	ATOM	437	C	PRO	A	125	58.848	20.642	7.824	1.00 19.76	A
	ATOM	438	O	PRO	A	125	58.544	19.700	8.550	1.00 16.99	A
	ATOM	439	N	TYR	A	126	57.947	21.418	7.235	1.00 18.98	A
10	ATOM	440	CA	TYR	A	126	56.516	21.220	7.435	1.00 21.97	A
	ATOM	441	CB	TYR	A	126	55.752	22.448	6.933	1.00 25.17	A
	ATOM	442	CG	TYR	A	126	56.040	23.690	7.748	1.00 30.98	A
	ATOM	443	CD1	TYR	A	126	55.438	23.886	8.991	1.00 33.95	A
	ATOM	444	CE1	TYR	A	126	55.721	25.015	9.763	1.00 36.60	A
15	ATOM	445	CD2	TYR	A	126	56.938	24.657	7.292	1.00 35.43	A
	ATOM	446	CE2	TYR	A	126	57.231	25.792	8.058	1.00 37.20	A
	ATOM	447	CZ	TYR	A	126	56.618	25.962	9.291	1.00 37.40	A
	ATOM	448	OH	TYR	A	126	56.903	27.073	10.052	1.00 40.85	A
	ATOM	449	C	TYR	A	126	55.990	19.956	6.762	1.00 21.35	A
20	ATOM	450	O	TYR	A	126	55.265	19.175	7.383	1.00 20.49	A
	ATOM	451	N	VAL	A	127	56.354	19.746	5.501	1.00 18.16	A
	ATOM	452	CA	VAL	A	127	55.892	18.562	4.790	1.00 17.58	A
	ATOM	453	CB	VAL	A	127	56.308	18.596	3.308	1.00 17.45	A
	ATOM	454	CG1	VAL	A	127	55.786	17.350	2.600	1.00 17.97	A
25	ATOM	455	CG2	VAL	A	127	55.751	19.850	2.641	1.00 14.90	A
	ATOM	456	C	VAL	A	127	56.459	17.306	5.448	1.00 18.39	A
	ATOM	457	O	VAL	A	127	55.769	16.298	5.583	1.00 18.14	A
	ATOM	458	N	THR	A	128	57.716	17.381	5.869	1.00 17.50	A
	ATOM	459	CA	THR	A	128	58.375	16.260	6.530	1.00 18.54	A
30	ATOM	460	CB	THR	A	128	59.861	16.586	6.805	1.00 18.01	A
	ATOM	461	OG1	THR	A	128	60.537	16.804	5.559	1.00 21.14	A
	ATOM	462	CG2	THR	A	128	60.536	15.446	7.545	1.00 17.95	A
	ATOM	463	C	THR	A	128	57.676	15.941	7.856	1.00 19.49	A
	ATOM	464	O	THR	A	128	57.438	14.776	8.179	1.00 18.76	A
35	ATOM	465	N	ARG	A	129	57.345	16.981	8.619	1.00 19.60	A
	ATOM	466	CA	ARG	A	129	56.673	16.804	9.904	1.00 20.12	A
	ATOM	467	CB	ARG	A	129	56.534	18.144	10.621	1.00 21.33	A
	ATOM	468	CG	ARG	A	129	55.948	18.029	12.023	1.00 28.02	A
	ATOM	469	CD	ARG	A	129	55.721	19.404	12.597	1.00 31.25	A
40	ATOM	470	NE	ARG	A	129	56.940	20.205	12.560	1.00 37.78	A
	ATOM	471	CZ	ARG	A	129	56.962	21.524	12.391	1.00 40.10	A
	ATOM	472	NH1	ARG	A	129	55.828	22.197	12.239	1.00 40.03	A
	ATOM	473	NH2	ARG	A	129	58.119	22.170	12.374	1.00 44.58	A
	ATOM	474	C	ARG	A	129	55.288	16.186	9.729	1.00 20.08	A
45	ATOM	475	O	ARG	A	129	54.891	15.305	10.496	1.00 20.40	A
	ATOM	476	N	GLU	A	130	54.553	16.654	8.724	1.00 18.79	A
	ATOM	477	CA	GLU	A	130	53.222	16.125	8.454	1.00 20.10	A
	ATOM	478	CB	GLU	A	130	52.638	16.749	7.183	1.00 19.92	A
	ATOM	479	CG	GLU	A	130	51.350	16.087	6.708	1.00 27.85	A
50	ATOM	480	CD	GLU	A	130	50.581	16.933	5.707	1.00 29.72	A
	ATOM	481	OE1	GLU	A	130	51.216	17.528	4.814	1.00 33.46	A
	ATOM	482	OE2	GLU	A	130	49.339	16.996	5.807	1.00 30.74	A
	ATOM	483	C	GLU	A	130	53.301	14.615	8.295	1.00 19.81	A
	ATOM	484	O	GLU	A	130	52.553	13.875	8.935	1.00 18.37	A
55	ATOM	485	N	ARG	A	131	54.219	14.162	7.447	1.00 20.41	A
	ATOM	486	CA	ARG	A	131	54.397	12.735	7.202	1.00 22.45	A
	ATOM	487	CB	ARG	A	131	55.442	12.511	6.098	1.00 25.16	A
	ATOM	488	CG	ARG	A	131	55.742	11.043	5.840	1.00 28.75	A
	ATOM	489	CD	ARG	A	131	56.736	10.837	4.708	1.00 33.75	A

	ATOM	490	NE	ARG A 131	57.020	9.415	4.520	1.00 40.07	A
	ATOM	491	CZ	ARG A 131	57.756	8.915	3.532	1.00 43.07	A
	ATOM	492	NH1	ARG A 131	58.293	9.721	2.625	1.00 44.91	A
	ATOM	493	NH2	ARG A 131	57.955	7.606	3.449	1.00 44.45	A
5	ATOM	494	C	ARG A 131	54.820	11.982	8.466	1.00 23.24	A
	ATOM	495	O	ARG A 131	54.241	10.948	8.804	1.00 23.86	A
	ATOM	496	N	ASP A 132	55.831	12.497	9.160	1.00 21.99	A
	ATOM	497	CA	ASP A 132	56.318	11.850	10.370	1.00 22.04	A
	ATOM	498	CB	ASP A 132	57.570	12.564	10.888	1.00 23.72	A
10	ATOM	499	CG	ASP A 132	58.750	12.442	9.932	1.00 27.77	A
	ATOM	500	OD1	ASP A 132	58.681	11.620	8.989	1.00 27.34	A
	ATOM	501	OD2	ASP A 132	59.753	13.163	10.128	1.00 28.70	A
	ATOM	502	C	ASP A 132	55.258	11.772	11.474	1.00 21.69	A
	ATOM	503	O	ASP A 132	55.077	10.723	12.092	1.00 22.75	A
15	ATOM	504	N	VAL A 133	54.551	12.868	11.725	1.00 19.54	A
	ATOM	505	CA	VAL A 133	53.525	12.843	12.759	1.00 18.52	A
	ATOM	506	CB	VAL A 133	52.908	14.244	12.990	1.00 19.26	A
	ATOM	507	CG1	VAL A 133	51.708	14.135	13.918	1.00 18.79	A
	ATOM	508	CG2	VAL A 133	53.953	15.180	13.604	1.00 18.80	A
20	ATOM	509	C	VAL A 133	52.419	11.854	12.398	1.00 19.46	A
	ATOM	510	O	VAL A 133	52.073	10.991	13.200	1.00 19.94	A
	ATOM	511	N	MET A 134	51.878	11.957	11.187	1.00 19.15	A
	ATOM	512	CA	MET A 134	50.807	11.052	10.792	1.00 21.25	A
	ATOM	513	CB	MET A 134	50.309	11.381	9.383	1.00 17.34	A
25	ATOM	514	CG	MET A 134	49.615	12.730	9.302	1.00 20.00	A
	ATOM	515	SD	MET A 134	48.643	12.952	7.798	1.00 24.21	A
	ATOM	516	CE	MET A 134	47.033	12.434	8.400	1.00 23.20	A
	ATOM	517	C	MET A 134	51.203	9.582	10.881	1.00 22.43	A
	ATOM	518	O	MET A 134	50.384	8.741	11.249	1.00 23.82	A
30	ATOM	519	N	SER A 135	52.454	9.273	10.556	1.00 23.09	A
	ATOM	520	CA	SER A 135	52.939	7.895	10.615	1.00 26.13	A
	ATOM	521	CB	SER A 135	54.356	7.798	10.039	1.00 26.17	A
	ATOM	522	OG	SER A 135	54.383	8.177	8.673	1.00 31.91	A
	ATOM	523	C	SER A 135	52.957	7.358	12.045	1.00 26.58	A
35	ATOM	524	O	SER A 135	52.926	6.148	12.261	1.00 26.42	A
	ATOM	525	N	ARG A 136	53.014	8.261	13.018	1.00 25.65	A
	ATOM	526	CA	ARG A 136	53.056	7.870	14.425	1.00 27.47	A
	ATOM	527	CB	ARG A 136	53.823	8.914	15.238	1.00 27.97	A
	ATOM	528	CG	ARG A 136	55.283	9.082	14.857	1.00 32.00	A
40	ATOM	529	CD	ARG A 136	55.904	10.218	15.664	1.00 33.03	A
	ATOM	530	NE	ARG A 136	55.602	10.073	17.084	1.00 36.11	A
	ATOM	531	CZ	ARG A 136	55.867	10.990	18.007	1.00 39.74	A
	ATOM	532	NH1	ARG A 136	56.449	12.132	17.661	1.00 40.55	A
	ATOM	533	NH2	ARG A 136	55.540	10.769	19.276	1.00 36.72	A
45	ATOM	534	C	ARG A 136	51.667	7.709	15.036	1.00 26.38	A
	ATOM	535	O	ARG A 136	51.516	7.121	16.106	1.00 27.06	A
	ATOM	536	N	LEU A 137	50.655	8.235	14.360	1.00 24.77	A
	ATOM	537	CA	LEU A 137	49.294	8.162	14.870	1.00 24.70	A
	ATOM	538	CB	LEU A 137	48.483	9.363	14.371	1.00 24.52	A
50	ATOM	539	CG	LEU A 137	49.050	10.760	14.662	1.00 26.67	A
	ATOM	540	CD1	LEU A 137	48.075	11.813	14.141	1.00 27.25	A
	ATOM	541	CD2	LEU A 137	49.279	10.945	16.155	1.00 27.09	A
	ATOM	542	C	LEU A 137	48.592	6.868	14.473	1.00 25.20	A
	ATOM	543	O	LEU A 137	48.619	6.469	13.309	1.00 25.99	A
55	ATOM	544	N	ASP A 138	47.971	6.218	15.451	1.00 21.89	A
	ATOM	545	CA	ASP A 138	47.239	4.977	15.219	1.00 21.35	A
	ATOM	546	CB	ASP A 138	48.124	3.761	15.523	1.00 22.14	A
	ATOM	547	CG	ASP A 138	47.432	2.448	15.201	1.00 24.90	A
	ATOM	548	OD1	ASP A 138	46.631	2.423	14.241	1.00 24.78	A

	ATOM	549	OD2	ASP	A	138	47.691	1.443	15.897	1.00	25.39	A
	ATOM	550	C	ASP	A	138	46.031	4.991	16.138	1.00	20.47	A
	ATOM	551	O	ASP	A	138	45.967	4.248	17.118	1.00	19.06	A
	ATOM	552	N	HIS	A	139	45.075	5.852	15.810	1.00	18.27	A
5	ATOM	553	CA	HIS	A	139	43.869	6.016	16.606	1.00	18.21	A
	ATOM	554	CB	HIS	A	139	44.096	7.157	17.612	1.00	15.84	A
	ATOM	555	CG	HIS	A	139	42.985	7.332	18.600	1.00	15.24	A
	ATOM	556	CD2	HIS	A	139	42.884	6.964	19.900	1.00	13.97	A
	ATOM	557	ND1	HIS	A	139	41.791	7.943	18.280	1.00	14.74	A
10	ATOM	558	CE1	HIS	A	139	41.002	7.944	19.341	1.00	14.19	A
	ATOM	559	NE2	HIS	A	139	41.641	7.356	20.336	1.00	14.15	A
	ATOM	560	C	HIS	A	139	42.715	6.330	15.654	1.00	18.50	A
	ATOM	561	O	HIS	A	139	42.879	7.080	14.693	1.00	20.80	A
	ATOM	562	N	PRO	A	140	41.527	5.767	15.913	1.00	18.32	A
15	ATOM	563	CD	PRO	A	140	41.143	4.984	17.100	1.00	16.71	A
	ATOM	564	CA	PRO	A	140	40.367	6.001	15.048	1.00	17.43	A
	ATOM	565	CB	PRO	A	140	39.273	5.157	15.704	1.00	16.64	A
	ATOM	566	CG	PRO	A	140	39.643	5.204	17.152	1.00	18.43	A
	ATOM	567	C	PRO	A	140	39.914	7.441	14.803	1.00	18.77	A
20	ATOM	568	O	PRO	A	140	39.207	7.695	13.831	1.00	19.88	A
	ATOM	569	N	PHE	A	141	40.301	8.381	15.664	1.00	17.14	A
	ATOM	570	CA	PHE	A	141	39.874	9.767	15.477	1.00	16.42	A
	ATOM	571	CB	PHE	A	141	39.568	10.422	16.836	1.00	14.60	A
	ATOM	572	CG	PHE	A	141	38.386	9.817	17.556	1.00	15.26	A
25	ATOM	573	CD1	PHE	A	141	37.335	9.234	16.842	1.00	14.78	A
	ATOM	574	CD2	PHE	A	141	38.297	9.880	18.942	1.00	13.70	A
	ATOM	575	CE1	PHE	A	141	36.215	8.727	17.502	1.00	16.94	A
	ATOM	576	CE2	PHE	A	141	37.178	9.375	19.615	1.00	15.75	A
	ATOM	577	CZ	PHE	A	141	36.135	8.799	18.893	1.00	16.89	A
30	ATOM	578	C	PHE	A	141	40.857	10.641	14.694	1.00	16.15	A
	ATOM	579	O	PHE	A	141	40.799	11.871	14.761	1.00	17.35	A
	ATOM	580	N	PHE	A	142	41.748	10.011	13.941	1.00	15.88	A
	ATOM	581	CA	PHE	A	142	42.727	10.756	13.154	1.00	17.89	A
	ATOM	582	CB	PHE	A	142	44.115	10.645	13.793	1.00	17.57	A
35	ATOM	583	CG	PHE	A	142	44.240	11.371	15.103	1.00	18.74	A
	ATOM	584	CD1	PHE	A	142	44.559	12.726	15.135	1.00	17.77	A
	ATOM	585	CD2	PHE	A	142	43.997	10.711	16.304	1.00	18.74	A
	ATOM	586	CE1	PHE	A	142	44.632	13.417	16.347	1.00	15.77	A
	ATOM	587	CE2	PHE	A	142	44.065	11.393	17.522	1.00	17.56	A
40	ATOM	588	CZ	PHE	A	142	44.383	12.747	17.542	1.00	17.14	A
	ATOM	589	C	PHE	A	142	42.793	10.231	11.729	1.00	19.12	A
	ATOM	590	O	PHE	A	142	42.659	9.030	11.504	1.00	20.01	A
	ATOM	591	N	VAL	A	143	42.978	11.135	10.769	1.00	18.72	A
	ATOM	592	CA	VAL	A	143	43.102	10.735	9.371	1.00	18.52	A
45	ATOM	593	CB	VAL	A	143	43.294	11.961	8.440	1.00	20.66	A
	ATOM	594	CG1	VAL	A	143	43.843	11.521	7.080	1.00	21.29	A
	ATOM	595	CG2	VAL	A	143	41.958	12.673	8.252	1.00	22.97	A
	ATOM	596	C	VAL	A	143	44.342	9.865	9.330	1.00	18.68	A
	ATOM	597	O	VAL	A	143	45.355	10.199	9.943	1.00	18.42	A
50	ATOM	598	N	LYS	A	144	44.259	8.745	8.623	1.00	18.30	A
	ATOM	599	CA	LYS	A	144	45.384	7.824	8.535	1.00	18.78	A
	ATOM	600	CB	LYS	A	144	44.889	6.373	8.608	1.00	22.27	A
	ATOM	601	CG	LYS	A	144	46.017	5.340	8.557	1.00	29.72	A
	ATOM	602	CD	LYS	A	144	45.491	3.912	8.674	1.00	34.16	A
55	ATOM	603	CE	LYS	A	144	46.631	2.896	8.577	1.00	37.67	A
	ATOM	604	NZ	LYS	A	144	46.138	1.484	8.629	1.00	39.02	A
	ATOM	605	C	LYS	A	144	46.192	8.002	7.261	1.00	18.53	A
	ATOM	606	O	LYS	A	144	45.643	8.314	6.200	1.00	18.18	A
	ATOM	607	N	LEU	A	145	47.502	7.816	7.385	1.00	16.79	A

	ATOM	608	CA	LEU A 145	48.411	7.900	6.251	1.00 17.45	A
	ATOM	609	CB	LEU A 145	49.686	8.653	6.641	1.00 18.82	A
	ATOM	610	CG	LEU A 145	50.734	8.902	5.549	1.00 20.23	A
	ATOM	611	CD1	LEU A 145	51.836	9.799	6.093	1.00 18.83	A
5	ATOM	612	CD2	LEU A 145	51.317	7.581	5.069	1.00 19.79	A
	ATOM	613	C	LEU A 145	48.739	6.450	5.907	1.00 19.19	A
	ATOM	614	O	LEU A 145	49.451	5.772	6.659	1.00 17.36	A
	ATOM	615	N	TYR A 146	48.215	5.972	4.782	1.00 17.28	A
	ATOM	616	CA	TYR A 146	48.444	4.593	4.358	1.00 17.57	A
10	ATOM	617	CB	TYR A 146	47.288	4.098	3.486	1.00 17.74	A
	ATOM	618	CG	TYR A 146	45.981	3.926	4.214	1.00 17.50	A
	ATOM	619	CD1	TYR A 146	45.099	4.995	4.377	1.00 16.50	A
	ATOM	620	CE1	TYR A 146	43.881	4.827	5.039	1.00 17.10	A
	ATOM	621	CD2	TYR A 146	45.620	2.686	4.735	1.00 18.28	A
15	ATOM	622	CE2	TYR A 146	44.411	2.506	5.399	1.00 19.84	A
	ATOM	623	CZ	TYR A 146	43.547	3.576	5.544	1.00 17.53	A
	ATOM	624	OH	TYR A 146	42.342	3.376	6.169	1.00 20.67	A
	ATOM	625	C	TYR A 146	49.735	4.376	3.582	1.00 18.72	A
	ATOM	626	O	TYR A 146	50.382	3.338	3.715	1.00 19.51	A
20	ATOM	627	N	PHE A 147	50.110	5.350	2.765	1.00 18.09	A
	ATOM	628	CA	PHE A 147	51.307	5.203	1.952	1.00 17.20	A
	ATOM	629	CB	PHE A 147	51.007	4.258	0.783	1.00 16.77	A
	ATOM	630	CG	PHE A 147	49.835	4.699	-0.070	1.00 17.75	A
	ATOM	631	CD1	PHE A 147	49.967	5.752	-0.975	1.00 16.58	A
25	ATOM	632	CD2	PHE A 147	48.595	4.075	0.053	1.00 18.07	A
	ATOM	633	CE1	PHE A 147	48.886	6.178	-1.742	1.00 19.62	A
	ATOM	634	CE2	PHE A 147	47.503	4.492	-0.710	1.00 18.56	A
	ATOM	635	CZ	PHE A 147	47.647	5.546	-1.610	1.00 19.27	A
	ATOM	636	C	PHE A 147	51.768	6.533	1.395	1.00 17.13	A
30	ATOM	637	O	PHE A 147	51.045	7.528	1.452	1.00 14.43	A
	ATOM	638	N	THR A 148	52.981	6.534	0.854	1.00 17.12	A
	ATOM	639	CA	THR A 148	53.541	7.718	0.232	1.00 17.96	A
	ATOM	640	CB	THR A 148	54.449	8.531	1.197	1.00 21.51	A
	ATOM	641	OG1	THR A 148	55.605	7.760	1.537	1.00 18.83	A
35	ATOM	642	CG2	THR A 148	53.700	8.897	2.472	1.00 19.60	A
	ATOM	643	C	THR A 148	54.386	7.262	-0.946	1.00 20.31	A
	ATOM	644	O	THR A 148	54.860	6.124	-0.991	1.00 18.94	A
	ATOM	645	N	PHE A 149	54.543	8.149	-1.916	1.00 19.16	A
	ATOM	646	CA	PHE A 149	55.368	7.877	-3.073	1.00 18.01	A
40	ATOM	647	CB	PHE A 149	54.748	6.801	-3.989	1.00 17.23	A
	ATOM	648	CG	PHE A 149	53.389	7.144	-4.544	1.00 16.88	A
	ATOM	649	CD1	PHE A 149	53.262	7.888	-5.712	1.00 18.58	A
	ATOM	650	CD2	PHE A 149	52.235	6.668	-3.927	1.00 17.31	A
	ATOM	651	CE1	PHE A 149	52.007	8.149	-6.267	1.00 19.26	A
45	ATOM	652	CE2	PHE A 149	50.972	6.923	-4.470	1.00 19.17	A
	ATOM	653	CZ	PHE A 149	50.858	7.663	-5.642	1.00 19.60	A
	ATOM	654	C	PHE A 149	55.542	9.205	-3.774	1.00 20.85	A
	ATOM	655	O	PHE A 149	54.934	10.200	-3.376	1.00 19.76	A
	ATOM	656	N	GLN A 150	56.398	9.241	-4.782	1.00 19.79	A
50	ATOM	657	CA	GLN A 150	56.636	10.481	-5.497	1.00 24.03	A
	ATOM	658	CB	GLN A 150	57.659	11.347	-4.739	1.00 24.45	A
	ATOM	659	CG	GLN A 150	58.986	10.645	-4.414	1.00 26.28	A
	ATOM	660	CD	GLN A 150	59.988	11.558	-3.692	1.00 29.02	A
	ATOM	661	OE1	GLN A 150	60.693	12.353	-4.321	1.00 27.05	A
55	ATOM	662	NE2	GLN A 150	60.042	11.449	-2.365	1.00 26.47	A
	ATOM	663	C	GLN A 150	57.160	10.203	-6.885	1.00 23.88	A
	ATOM	664	O	GLN A 150	57.673	9.118	-7.158	1.00 24.79	A
	ATOM	665	N	ASP A 151	56.987	11.171	-7.774	1.00 25.88	A
	ATOM	666	CA	ASP A 151	57.527	11.047	-9.117	1.00 26.49	A

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      ATOM   667  CB  ASP A 151    56.437  11.126 -10.199  1.00 24.54      A
      ATOM   668  CG  ASP A 151    55.544  12.336 -10.064  1.00 24.95      A
      ATOM   669  OD1 ASP A 151    56.005  13.379  -9.561  1.00 22.44      A
      ATOM   670  OD2 ASP A 151    54.369  12.242 -10.490  1.00 25.72      A
   5  ATOM   671  C   ASP A 151    58.515  12.203  -9.220  1.00 28.63      A
      ATOM   672  O   ASP A 151    58.890  12.780  -8.194  1.00 27.83      A
      ATOM   673  N   ASP A 152    58.934  12.560 -10.426  1.00 29.21      A
      ATOM   674  CA  ASP A 152    59.907  13.636 -10.562  1.00 31.88      A
      ATOM   675  CB  ASP A 152    60.325  13.792 -12.026  1.00 33.94      A
  10  ATOM   676  CG  ASP A 152    61.033  12.564 -12.557  1.00 38.88      A
      ATOM   677  OD1 ASP A 152    61.817  11.959 -11.791  1.00 39.67      A
      ATOM   678  OD2 ASP A 152    60.817  12.211 -13.738  1.00 41.57      A
      ATOM   679  C   ASP A 152    59.487  14.994 -10.013  1.00 30.90      A
      ATOM   680  O   ASP A 152    60.316  15.735  -9.482  1.00 31.69      A
  15  ATOM   681  N   GLU A 153    58.207  15.322 -10.107  1.00 29.44      A
      ATOM   682  CA  GLU A 153    57.767  16.632  -9.646  1.00 28.69      A
      ATOM   683  CB  GLU A 153    56.984  17.327 -10.766  1.00 32.90      A
      ATOM   684  CG  GLU A 153    57.451  16.987 -12.183  1.00 40.57      A
      ATOM   685  CD  GLU A 153    56.920  15.643 -12.675  1.00 45.78      A
  20  ATOM   686  OE1 GLU A 153    55.682  15.482 -12.760  1.00 48.91      A
      ATOM   687  OE2 GLU A 153    57.736  14.747 -12.979  1.00 48.95      A
      ATOM   688  C   GLU A 153    56.929  16.683  -8.372  1.00 26.43      A
      ATOM   689  O   GLU A 153    56.947  17.688  -7.660  1.00 25.08      A
      ATOM   690  N   LYS A 154    56.205  15.610  -8.069  1.00 22.39      A
  25  ATOM   691  CA  LYS A 154    55.318  15.631  -6.912  1.00 21.43      A
      ATOM   692  CB  LYS A 154    53.861  15.628  -7.398  1.00 20.33      A
      ATOM   693  CG  LYS A 154    53.505  16.716  -8.403  1.00 21.92      A
      ATOM   694  CD  LYS A 154    52.211  16.375  -9.146  1.00 19.70      A
      ATOM   695  CE  LYS A 154    51.775  17.503 -10.077  1.00 20.04      A
  30  ATOM   696  NZ  LYS A 154    50.631  17.094 -10.951  1.00 19.97      A
      ATOM   697  C   LYS A 154    55.458  14.522  -5.881  1.00 20.43      A
      ATOM   698  O   LYS A 154    55.949  13.426  -6.173  1.00 21.13      A
      ATOM   699  N   LEU A 155    54.985  14.832  -4.676  1.00 19.69      A
      ATOM   700  CA  LEU A 155    54.950  13.900  -3.553  1.00 19.10      A
  35  ATOM   701  CB  LEU A 155    55.362  14.588  -2.252  1.00 19.65      A
      ATOM   702  CG  LEU A 155    56.740  15.234  -2.129  1.00 21.20      A
      ATOM   703  CD1 LEU A 155    56.848  15.918  -0.770  1.00 23.42      A
      ATOM   704  CD2 LEU A 155    57.816  14.174  -2.277  1.00 23.08      A
      ATOM   705  C   LEU A 155    53.478  13.507  -3.427  1.00 18.87      A
  40  ATOM   706  O   LEU A 155    52.600  14.348  -3.620  1.00 18.61      A
      ATOM   707  N   TYR A 156    53.209  12.249  -3.091  1.00 15.02      A
      ATOM   708  CA  TYR A 156    51.834  11.783  -2.934  1.00 16.29      A
      ATOM   709  CB  TYR A 156    51.470  10.769  -4.029  1.00 14.20      A
      ATOM   710  CG  TYR A 156    51.603  11.273  -5.449  1.00 17.29      A
  45  ATOM   711  CD1 TYR A 156    52.857  11.429  -6.045  1.00 16.46      A
      ATOM   712  CE1 TYR A 156    52.978  11.884  -7.360  1.00 18.68      A
      ATOM   713  CD2 TYR A 156    50.474  11.588  -6.202  1.00 16.43      A
      ATOM   714  CE2 TYR A 156    50.583  12.048  -7.512  1.00 16.31      A
      ATOM   715  CZ  TYR A 156    51.835  12.192  -8.083  1.00 18.17      A
  50  ATOM   716  OH  TYR A 156    51.941  12.651  -9.371  1.00 17.47      A
      ATOM   717  C   TYR A 156    51.657  11.108  -1.572  1.00 16.32      A
      ATOM   718  O   TYR A 156    52.412  10.197  -1.235  1.00 16.27      A
      ATOM   719  N   PHE A 157    50.678  11.568  -0.792  1.00 15.47      A
      ATOM   720  CA  PHE A 157    50.385  10.966   0.508  1.00 16.66      A
  55  ATOM   721  CB  PHE A 157    50.324  12.014   1.629  1.00 16.91      A
      ATOM   722  CG  PHE A 157    51.631  12.708   1.907  1.00 18.96      A
      ATOM   723  CD1 PHE A 157    52.821  12.261   1.340  1.00 20.31      A
      ATOM   724  CD2 PHE A 157    51.664  13.829   2.732  1.00 21.12      A
      ATOM   725  CE1 PHE A 157    54.025  12.926   1.585  1.00 22.08      A
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	ATOM	726	CE2	PHE	A	157	52.865	14.500	2.982	1.00	22.18	A
	ATOM	727	CZ	PHE	A	157	54.045	14.045	2.405	1.00	21.27	A
	ATOM	728	C	PHE	A	157	49.016	10.308	0.404	1.00	16.52	A
	ATOM	729	O	PHE	A	157	48.029	10.979	0.110	1.00	17.32	A
5	ATOM	730	N	GLY	A	158	48.953	9.002	0.644	1.00	15.97	A
	ATOM	731	CA	GLY	A	158	47.684	8.299	0.572	1.00	16.13	A
	ATOM	732	C	GLY	A	158	47.000	8.383	1.920	1.00	14.94	A
	ATOM	733	O	GLY	A	158	47.445	7.756	2.879	1.00	16.28	A
	ATOM	734	N	LEU	A	159	45.915	9.145	1.989	1.00	13.50	A
10	ATOM	735	CA	LEU	A	159	45.191	9.340	3.241	1.00	15.20	A
	ATOM	736	CB	LEU	A	159	45.031	10.835	3.517	1.00	14.20	A
	ATOM	737	CG	LEU	A	159	46.270	11.726	3.385	1.00	19.00	A
	ATOM	738	CD1	LEU	A	159	45.847	13.188	3.477	1.00	17.12	A
	ATOM	739	CD2	LEU	A	159	47.275	11.390	4.471	1.00	14.71	A
15	ATOM	740	C	LEU	A	159	43.809	8.716	3.232	1.00	15.53	A
	ATOM	741	O	LEU	A	159	43.232	8.472	2.177	1.00	16.05	A
	ATOM	742	N	SER	A	160	43.268	8.469	4.418	1.00	15.86	A
	ATOM	743	CA	SER	A	160	41.932	7.917	4.498	1.00	19.01	A
	ATOM	744	CB	SER	A	160	41.566	7.582	5.949	1.00	22.90	A
20	ATOM	745	OG	SER	A	160	41.901	8.629	6.833	1.00	24.18	A
	ATOM	746	C	SER	A	160	40.987	8.968	3.924	1.00	20.43	A
	ATOM	747	O	SER	A	160	41.213	10.173	4.062	1.00	19.96	A
	ATOM	748	N	TYR	A	161	39.945	8.508	3.250	1.00	19.20	A
	ATOM	749	CA	TYR	A	161	38.975	9.406	2.644	1.00	20.37	A
25	ATOM	750	CB	TYR	A	161	38.471	8.785	1.332	1.00	20.00	A
	ATOM	751	CG	TYR	A	161	37.314	9.502	0.666	1.00	20.72	A
	ATOM	752	CD1	TYR	A	161	37.222	10.895	0.682	1.00	18.22	A
	ATOM	753	CE1	TYR	A	161	36.180	11.557	0.029	1.00	22.24	A
	ATOM	754	CD2	TYR	A	161	36.333	8.784	-0.020	1.00	20.53	A
30	ATOM	755	CE2	TYR	A	161	35.287	9.436	-0.678	1.00	24.24	A
	ATOM	756	CZ	TYR	A	161	35.218	10.822	-0.648	1.00	22.32	A
	ATOM	757	OH	TYR	A	161	34.194	11.471	-1.298	1.00	23.03	A
	ATOM	758	C	TYR	A	161	37.812	9.681	3.598	1.00	20.14	A
	ATOM	759	O	TYR	A	161	36.959	8.819	3.810	1.00	19.53	A
35	ATOM	760	N	ALA	A	162	37.791	10.880	4.178	1.00	19.92	A
	ATOM	761	CA	ALA	A	162	36.721	11.271	5.099	1.00	21.07	A
	ATOM	762	CB	ALA	A	162	37.187	12.419	6.002	1.00	19.60	A
	ATOM	763	C	ALA	A	162	35.542	11.712	4.238	1.00	22.07	A
	ATOM	764	O	ALA	A	162	35.436	12.875	3.860	1.00	20.66	A
40	ATOM	765	N	LYS	A	163	34.653	10.769	3.945	1.00	23.27	A
	ATOM	766	CA	LYS	A	163	33.503	11.017	3.080	1.00	27.12	A
	ATOM	767	CB	LYS	A	163	32.663	9.741	2.963	1.00	29.68	A
	ATOM	768	CG	LYS	A	163	33.455	8.524	2.515	1.00	37.67	A
	ATOM	769	CD	LYS	A	163	32.556	7.310	2.321	1.00	42.24	A
45	ATOM	770	CE	LYS	A	163	33.373	6.034	2.185	1.00	44.48	A
	ATOM	771	NZ	LYS	A	163	34.143	5.735	3.430	1.00	44.88	A
	ATOM	772	C	LYS	A	163	32.581	12.186	3.411	1.00	25.78	A
	ATOM	773	O	LYS	A	163	32.103	12.863	2.506	1.00	26.53	A
	ATOM	774	N	ASN	A	164	32.327	12.441	4.689	1.00	24.57	A
50	ATOM	775	CA	ASN	A	164	31.420	13.522	5.033	1.00	23.77	A
	ATOM	776	CB	ASN	A	164	30.610	13.129	6.265	1.00	25.02	A
	ATOM	777	CG	ASN	A	164	29.537	12.101	5.932	1.00	27.54	A
	ATOM	778	OD1	ASN	A	164	28.772	12.281	4.983	1.00	28.79	A
	ATOM	779	ND2	ASN	A	164	29.475	11.024	6.704	1.00	27.13	A
55	ATOM	780	C	ASN	A	164	31.999	14.931	5.169	1.00	24.43	A
	ATOM	781	O	ASN	A	164	31.306	15.856	5.589	1.00	23.98	A
	ATOM	782	N	GLY	A	165	33.262	15.097	4.795	1.00	21.56	A
	ATOM	783	CA	GLY	A	165	33.873	16.414	4.836	1.00	24.39	A
	ATOM	784	C	GLY	A	165	34.191	17.043	6.181	1.00	23.62	A

	ATOM	785	O	GLY	A	165	34.380	16.352	7.177	1.00	23.26	A
	ATOM	786	N	GLU	A	166	34.234	18.373	6.186	1.00	23.22	A
	ATOM	787	CA	GLU	A	166	34.563	19.176	7.362	1.00	24.54	A
	ATOM	788	CB	GLU	A	166	35.055	20.558	6.913	1.00	25.04	A
5	ATOM	789	CG	GLU	A	166	36.419	20.569	6.229	1.00	26.48	A
	ATOM	790	CD	GLU	A	166	36.699	21.889	5.517	1.00	30.02	A
	ATOM	791	OE1	GLU	A	166	36.081	22.906	5.889	1.00	29.33	A
	ATOM	792	OE2	GLU	A	166	37.544	21.916	4.596	1.00	30.48	A
	ATOM	793	C	GLU	A	166	33.436	19.372	8.369	1.00	24.44	A
10	ATOM	794	O	GLU	A	166	32.279	19.541	8.001	1.00	22.76	A
	ATOM	795	N	LEU	A	167	33.791	19.370	9.649	1.00	22.95	A
	ATOM	796	CA	LEU	A	167	32.813	19.581	10.707	1.00	22.26	A
	ATOM	797	CB	LEU	A	167	33.497	19.481	12.073	1.00	22.32	A
	ATOM	798	CG	LEU	A	167	32.706	19.923	13.306	1.00	22.04	A
15	ATOM	799	CD1	LEU	A	167	31.454	19.074	13.463	1.00	19.66	A
	ATOM	800	CD2	LEU	A	167	33.597	19.805	14.537	1.00	21.17	A
	ATOM	801	C	LEU	A	167	32.193	20.971	10.529	1.00	23.49	A
	ATOM	802	O	LEU	A	167	31.047	21.209	10.907	1.00	23.56	A
	ATOM	803	N	LEU	A	168	32.960	21.887	9.948	1.00	24.25	A
20	ATOM	804	CA	LEU	A	168	32.473	23.245	9.722	1.00	26.64	A
	ATOM	805	CB	LEU	A	168	33.560	24.099	9.066	1.00	25.62	A
	ATOM	806	CG	LEU	A	168	33.198	25.546	8.707	1.00	27.34	A
	ATOM	807	CD1	LEU	A	168	32.718	26.296	9.946	1.00	26.42	A
	ATOM	808	CD2	LEU	A	168	34.418	26.238	8.119	1.00	26.74	A
25	ATOM	809	C	LEU	A	168	31.234	23.218	8.829	1.00	27.13	A
	ATOM	810	O	LEU	A	168	30.297	23.989	9.030	1.00	26.01	A
	ATOM	811	N	LYS	A	169	31.233	22.320	7.848	1.00	26.41	A
	ATOM	812	CA	LYS	A	169	30.106	22.210	6.934	1.00	27.70	A
	ATOM	813	CB	LYS	A	169	30.324	21.064	5.945	1.00	30.49	A
30	ATOM	814	CG	LYS	A	169	29.151	20.854	4.993	1.00	32.47	A
	ATOM	815	CD	LYS	A	169	29.407	19.728	3.998	1.00	35.98	A
	ATOM	816	CE	LYS	A	169	29.462	18.372	4.683	1.00	38.53	A
	ATOM	817	NZ	LYS	A	169	29.622	17.263	3.702	1.00	41.00	A
	ATOM	818	C	LYS	A	169	28.801	21.985	7.682	1.00	28.12	A
35	ATOM	819	O	LYS	A	169	27.785	22.608	7.371	1.00	28.08	A
	ATOM	820	N	TYR	A	170	28.826	21.094	8.668	1.00	26.53	A
	ATOM	821	CA	TYR	A	170	27.624	20.791	9.434	1.00	26.95	A
	ATOM	822	CB	TYR	A	170	27.810	19.476	10.193	1.00	25.03	A
	ATOM	823	CG	TYR	A	170	27.898	18.300	9.251	1.00	26.65	A
40	ATOM	824	CD1	TYR	A	170	26.745	17.661	8.790	1.00	28.27	A
	ATOM	825	CE1	TYR	A	170	26.814	16.642	7.839	1.00	26.85	A
	ATOM	826	CD2	TYR	A	170	29.127	17.884	8.742	1.00	27.83	A
	ATOM	827	CE2	TYR	A	170	29.209	16.869	7.792	1.00	27.19	A
	ATOM	828	CZ	TYR	A	170	28.049	16.254	7.343	1.00	30.02	A
45	ATOM	829	OH	TYR	A	170	28.130	15.268	6.382	1.00	29.23	A
	ATOM	830	C	TYR	A	170	27.229	21.918	10.376	1.00	27.59	A
	ATOM	831	O	TYR	A	170	26.045	22.122	10.642	1.00	29.25	A
	ATOM	832	N	ILE	A	171	28.208	22.660	10.882	1.00	28.16	A
	ATOM	833	CA	ILE	A	171	27.883	23.770	11.763	1.00	29.03	A
50	ATOM	834	CB	ILE	A	171	29.151	24.435	12.337	1.00	27.51	A
	ATOM	835	CG2	ILE	A	171	28.773	25.705	13.084	1.00	27.97	A
	ATOM	836	CG1	ILE	A	171	29.872	23.458	13.272	1.00	26.70	A
	ATOM	837	CD1	ILE	A	171	31.163	23.996	13.856	1.00	24.07	A
	ATOM	838	C	ILE	A	171	27.094	24.796	10.944	1.00	31.41	A
55	ATOM	839	O	ILE	A	171	26.088	25.335	11.407	1.00	31.69	A
	ATOM	840	N	ARG	A	172	27.546	25.047	9.719	1.00	33.21	A
	ATOM	841	CA	ARG	A	172	26.874	26.000	8.844	1.00	36.54	A
	ATOM	842	CB	ARG	A	172	27.734	26.314	7.616	1.00	37.73	A
	ATOM	843	CG	ARG	A	172	29.057	27.011	7.912	1.00	41.65	A

	ATOM	844	CD	ARG	A	172	29.708	27.492	6.616	1.00	45.29	A
	ATOM	845	NE	ARG	A	172	31.037	28.070	6.812	1.00	48.51	A
	ATOM	846	CZ	ARG	A	172	31.314	29.059	7.658	1.00	51.53	A
	ATOM	847	NH1	ARG	A	172	30.355	29.593	8.406	1.00	53.75	A
5	ATOM	848	NH2	ARG	A	172	32.553	29.526	7.748	1.00	51.21	A
	ATOM	849	C	ARG	A	172	25.528	25.459	8.378	1.00	37.67	A
	ATOM	850	O	ARG	A	172	24.550	26.200	8.288	1.00	39.09	A
	ATOM	851	N	LYS	A	173	25.481	24.163	8.092	1.00	38.44	A
	ATOM	852	CA	LYS	A	173	24.259	23.528	7.619	1.00	39.25	A
10	ATOM	853	CB	LYS	A	173	24.523	22.061	7.272	1.00	41.89	A
	ATOM	854	CG	LYS	A	173	23.279	21.298	6.830	1.00	45.52	A
	ATOM	855	CD	LYS	A	173	23.557	19.808	6.653	1.00	49.60	A
	ATOM	856	CE	LYS	A	173	24.477	19.530	5.469	1.00	52.63	A
	ATOM	857	NZ	LYS	A	173	23.855	19.894	4.160	1.00	54.61	A
15	ATOM	858	C	LYS	A	173	23.089	23.608	8.595	1.00	39.30	A
	ATOM	859	O	LYS	A	173	21.981	23.960	8.201	1.00	39.62	A
	ATOM	860	N	ILE	A	174	23.320	23.282	9.863	1.00	37.96	A
	ATOM	861	CA	ILE	A	174	22.229	23.314	10.833	1.00	37.36	A
	ATOM	862	CB	ILE	A	174	22.159	21.998	11.652	1.00	37.44	A
20	ATOM	863	CG2	ILE	A	174	22.058	20.802	10.709	1.00	38.37	A
	ATOM	864	CG1	ILE	A	174	23.397	21.850	12.532	1.00	37.25	A
	ATOM	865	CD1	ILE	A	174	23.355	20.620	13.418	1.00	36.85	A
	ATOM	866	C	ILE	A	174	22.259	24.492	11.801	1.00	36.71	A
	ATOM	867	O	ILE	A	174	21.448	24.556	12.724	1.00	38.05	A
25	ATOM	868	N	GLY	A	175	23.185	25.423	11.592	1.00	35.48	A
	ATOM	869	CA	GLY	A	175	23.265	26.585	12.462	1.00	35.29	A
	ATOM	870	C	GLY	A	175	24.053	26.360	13.737	1.00	35.06	A
	ATOM	871	O	GLY	A	175	25.066	27.019	13.970	1.00	37.46	A
	ATOM	872	N	SER	A	176	23.581	25.441	14.571	1.00	33.94	A
30	ATOM	873	CA	SER	A	176	24.253	25.113	15.822	1.00	32.84	A
	ATOM	874	CB	SER	A	176	23.938	26.155	16.901	1.00	33.54	A
	ATOM	875	OG	SER	A	176	22.599	26.056	17.347	1.00	34.86	A
	ATOM	876	C	SER	A	176	23.796	23.731	16.276	1.00	32.34	A
	ATOM	877	O	SER	A	176	22.726	23.263	15.884	1.00	32.82	A
35	ATOM	878	N	PHE	A	177	24.609	23.085	17.103	1.00	29.39	A
	ATOM	879	CA	PHE	A	177	24.313	21.743	17.597	1.00	27.20	A
	ATOM	880	CB	PHE	A	177	25.621	20.989	17.865	1.00	26.39	A
	ATOM	881	CG	PHE	A	177	26.372	20.585	16.622	1.00	26.18	A
	ATOM	882	CD1	PHE	A	177	26.210	21.277	15.426	1.00	25.30	A
40	ATOM	883	CD2	PHE	A	177	27.266	19.516	16.662	1.00	26.05	A
	ATOM	884	CE1	PHE	A	177	26.923	20.912	14.290	1.00	26.59	A
	ATOM	885	CE2	PHE	A	177	27.986	19.143	15.532	1.00	26.06	A
	ATOM	886	CZ	PHE	A	177	27.815	19.841	14.343	1.00	25.42	A
	ATOM	887	C	PHE	A	177	23.500	21.752	18.884	1.00	27.00	A
45	ATOM	888	O	PHE	A	177	23.704	22.610	19.747	1.00	26.48	A
	ATOM	889	N	ASP	A	178	22.578	20.802	19.022	1.00	26.70	A
	ATOM	890	CA	ASP	A	178	21.816	20.729	20.260	1.00	26.35	A
	ATOM	891	CB	ASP	A	178	20.621	19.773	20.142	1.00	29.90	A
	ATOM	892	CG	ASP	A	178	21.020	18.372	19.720	1.00	32.28	A
50	ATOM	893	OD1	ASP	A	178	22.157	17.949	20.014	1.00	35.21	A
	ATOM	894	OD2	ASP	A	178	20.179	17.683	19.105	1.00	34.79	A
	ATOM	895	C	ASP	A	178	22.810	20.228	21.311	1.00	25.03	A
	ATOM	896	O	ASP	A	178	23.974	19.968	20.992	1.00	21.24	A
	ATOM	897	N	GLU	A	179	22.361	20.083	22.552	1.00	23.60	A
55	ATOM	898	CA	GLU	A	179	23.247	19.644	23.619	1.00	25.18	A
	ATOM	899	CB	GLU	A	179	22.542	19.770	24.971	1.00	27.60	A
	ATOM	900	CG	GLU	A	179	23.324	19.176	26.130	1.00	32.58	A
	ATOM	901	CD	GLU	A	179	22.997	19.845	27.449	1.00	35.82	A
	ATOM	902	OE1	GLU	A	179	21.825	20.224	27.645	1.00	35.95	A

	ATOM	903	OE2	GLU A 179	23.912	19.984	28.291	1.00	38.19	A
	ATOM	904	C	GLU A 179	23.808	18.235	23.450	1.00	24.08	A
	ATOM	905	O	GLU A 179	24.977	17.989	23.756	1.00	22.79	A
	ATOM	906	N	THR A 180	22.983	17.316	22.961	1.00	23.36	A
5	ATOM	907	CA	THR A 180	23.412	15.935	22.761	1.00	22.15	A
	ATOM	908	CB	THR A 180	22.224	15.054	22.320	1.00	23.77	A
	ATOM	909	OG1	THR A 180	21.222	15.075	23.341	1.00	26.37	A
	ATOM	910	CG2	THR A 180	22.670	13.616	22.088	1.00	22.66	A
	ATOM	911	C	THR A 180	24.533	15.830	21.724	1.00	22.01	A
10	ATOM	912	O	THR A 180	25.533	15.141	21.944	1.00	19.87	A
	ATOM	913	N	CYS A 181	24.365	16.511	20.596	1.00	21.21	A
	ATOM	914	CA	CYS A 181	25.372	16.480	19.541	1.00	22.22	A
	ATOM	915	CB	CYS A 181	24.800	17.065	18.250	1.00	24.62	A
	ATOM	916	SG	CYS A 181	23.435	16.080	17.560	1.00	29.50	A
15	ATOM	917	C	CYS A 181	26.633	17.232	19.954	1.00	23.07	A
	ATOM	918	O	CYS A 181	27.746	16.827	19.608	1.00	23.95	A
	ATOM	919	N	THR A 182	26.463	18.325	20.695	1.00	22.76	A
	ATOM	920	CA	THR A 182	27.606	19.103	21.161	1.00	21.49	A
	ATOM	921	CB	THR A 182	27.167	20.346	21.978	1.00	21.37	A
20	ATOM	922	OG1	THR A 182	26.459	21.262	21.134	1.00	22.50	A
	ATOM	923	CG2	THR A 182	28.379	21.046	22.565	1.00	18.36	A
	ATOM	924	C	THR A 182	28.454	18.215	22.071	1.00	21.48	A
	ATOM	925	O	THR A 182	29.669	18.090	21.894	1.00	19.95	A
	ATOM	926	N	ARG A 183	27.798	17.602	23.050	1.00	18.97	A
25	ATOM	927	CA	ARG A 183	28.468	16.723	23.996	1.00	19.39	A
	ATOM	928	CB	ARG A 183	27.455	16.140	24.984	1.00	19.46	A
	ATOM	929	CG	ARG A 183	28.030	15.062	25.887	1.00	18.77	A
	ATOM	930	CD	ARG A 183	27.021	14.571	26.925	1.00	21.19	A
	ATOM	931	NE	ARG A 183	26.605	15.642	27.824	1.00	19.46	A
30	ATOM	932	CZ	ARG A 183	25.496	16.362	27.679	1.00	20.45	A
	ATOM	933	NH1	ARG A 183	24.672	16.123	26.666	1.00	19.81	A
	ATOM	934	NH2	ARG A 183	25.224	17.338	28.539	1.00	17.11	A
	ATOM	935	C	ARG A 183	29.206	15.577	23.302	1.00	20.02	A
	ATOM	936	O	ARG A 183	30.383	15.333	23.573	1.00	19.97	A
35	ATOM	937	N	PHE A 184	28.520	14.871	22.409	1.00	19.24	A
	ATOM	938	CA	PHE A 184	29.144	13.746	21.722	1.00	18.04	A
	ATOM	939	CB	PHE A 184	28.158	13.078	20.764	1.00	21.05	A
	ATOM	940	CG	PHE A 184	28.719	11.857	20.098	1.00	22.67	A
	ATOM	941	CD1	PHE A 184	28.717	10.630	20.754	1.00	22.97	A
40	ATOM	942	CD2	PHE A 184	29.317	11.949	18.850	1.00	19.97	A
	ATOM	943	CE1	PHE A 184	29.308	9.510	20.176	1.00	23.53	A
	ATOM	944	CE2	PHE A 184	29.915	10.833	18.263	1.00	24.11	A
	ATOM	945	CZ	PHE A 184	29.910	9.613	18.928	1.00	22.97	A
	ATOM	946	C	PHE A 184	30.403	14.127	20.941	1.00	17.99	A
45	ATOM	947	O	PHE A 184	31.461	13.531	21.130	1.00	18.89	A
	ATOM	948	N	TYR A 185	30.292	15.110	20.056	1.00	15.73	A
	ATOM	949	CA	TYR A 185	31.443	15.519	19.265	1.00	15.72	A
	ATOM	950	CB	TYR A 185	30.992	16.413	18.111	1.00	17.33	A
	ATOM	951	CG	TYR A 185	30.364	15.584	17.015	1.00	19.37	A
50	ATOM	952	CD1	TYR A 185	31.159	14.809	16.168	1.00	16.53	A
	ATOM	953	CE1	TYR A 185	30.590	13.952	15.232	1.00	18.12	A
	ATOM	954	CD2	TYR A 185	28.976	15.484	16.892	1.00	18.18	A
	ATOM	955	CE2	TYR A 185	28.398	14.623	15.956	1.00	18.90	A
	ATOM	956	CZ	TYR A 185	29.211	13.861	15.133	1.00	18.41	A
55	ATOM	957	OH	TYR A 185	28.650	12.995	14.218	1.00	20.48	A
	ATOM	958	C	TYR A 185	32.544	16.172	20.083	1.00	15.79	A
	ATOM	959	O	TYR A 185	33.720	16.015	19.766	1.00	17.69	A
	ATOM	960	N	THR A 186	32.176	16.887	21.142	1.00	15.68	A
	ATOM	961	CA	THR A 186	33.184	17.504	21.997	1.00	16.03	A

	ATOM	962	CB	THR	A	186	32.559	18.403	23.094	1.00	16.62	A
	ATOM	963	OG1	THR	A	186	31.866	19.503	22.481	1.00	14.79	A
	ATOM	964	CG2	THR	A	186	33.656	18.953	24.019	1.00	14.68	A
	ATOM	965	C	THR	A	186	33.954	16.375	22.680	1.00	15.59	A
5	ATOM	966	O	THR	A	186	35.176	16.443	22.823	1.00	13.77	A
	ATOM	967	N	ALA	A	187	33.234	15.333	23.097	1.00	14.06	A
	ATOM	968	CA	ALA	A	187	33.869	14.196	23.757	1.00	14.74	A
	ATOM	969	CB	ALA	A	187	32.810	13.195	24.224	1.00	14.32	A
	ATOM	970	C	ALA	A	187	34.875	13.509	22.821	1.00	14.41	A
10	ATOM	971	O	ALA	A	187	35.972	13.136	23.247	1.00	15.61	A
	ATOM	972	N	GLU	A	188	34.516	13.340	21.549	1.00	14.01	A
	ATOM	973	CA	GLU	A	188	35.443	12.704	20.615	1.00	13.50	A
	ATOM	974	CB	GLU	A	188	34.782	12.449	19.251	1.00	12.85	A
	ATOM	975	CG	GLU	A	188	33.622	11.454	19.282	1.00	12.71	A
15	ATOM	976	CD	GLU	A	188	33.464	10.685	17.979	1.00	15.01	A
	ATOM	977	OE1	GLU	A	188	33.687	11.275	16.899	1.00	13.21	A
	ATOM	978	OE2	GLU	A	188	33.110	9.484	18.031	1.00	17.69	A
	ATOM	979	C	GLU	A	188	36.682	13.582	20.436	1.00	13.34	A
	ATOM	980	O	GLU	A	188	37.803	13.085	20.408	1.00	14.69	A
20	ATOM	981	N	ILE	A	189	36.486	14.893	20.326	1.00	13.52	A
	ATOM	982	CA	ILE	A	189	37.627	15.787	20.159	1.00	13.35	A
	ATOM	983	CB	ILE	A	189	37.169	17.247	19.939	1.00	13.95	A
	ATOM	984	CG2	ILE	A	189	38.381	18.165	19.822	1.00	12.47	A
	ATOM	985	CG1	ILE	A	189	36.302	17.332	18.671	1.00	13.44	A
25	ATOM	986	CD1	ILE	A	189	35.588	18.664	18.491	1.00	14.29	A
	ATOM	987	C	ILE	A	189	38.530	15.702	21.394	1.00	14.63	A
	ATOM	988	O	ILE	A	189	39.753	15.595	21.271	1.00	12.97	A
	ATOM	989	N	VAL	A	190	37.927	15.751	22.582	1.00	14.35	A
	ATOM	990	CA	VAL	A	190	38.684	15.655	23.832	1.00	13.22	A
30	ATOM	991	CB	VAL	A	190	37.743	15.690	25.061	1.00	14.28	A
	ATOM	992	CG1	VAL	A	190	38.509	15.267	26.326	1.00	15.08	A
	ATOM	993	CG2	VAL	A	190	37.160	17.082	25.233	1.00	12.08	A
	ATOM	994	C	VAL	A	190	39.468	14.338	23.859	1.00	14.61	A
	ATOM	995	O	VAL	A	190	40.634	14.304	24.250	1.00	13.72	A
35	ATOM	996	N	SER	A	191	38.825	13.254	23.432	1.00	15.26	A
	ATOM	997	CA	SER	A	191	39.478	11.943	23.421	1.00	16.81	A
	ATOM	998	CB	SER	A	191	38.470	10.857	23.041	1.00	16.14	A
	ATOM	999	OG	SER	A	191	39.018	9.569	23.238	1.00	16.94	A
	ATOM	1000	C	SER	A	191	40.649	11.928	22.441	1.00	16.58	A
40	ATOM	1001	O	SER	A	191	41.697	11.335	22.713	1.00	13.96	A
	ATOM	1002	N	ALA	A	192	40.468	12.586	21.300	1.00	15.26	A
	ATOM	1003	CA	ALA	A	192	41.518	12.645	20.292	1.00	14.37	A
	ATOM	1004	CB	ALA	A	192	40.989	13.296	19.016	1.00	14.43	A
	ATOM	1005	C	ALA	A	192	42.695	13.440	20.845	1.00	16.46	A
45	ATOM	1006	O	ALA	A	192	43.851	13.038	20.697	1.00	17.96	A
	ATOM	1007	N	LEU	A	193	42.401	14.563	21.496	1.00	15.02	A
	ATOM	1008	CA	LEU	A	193	43.459	15.392	22.067	1.00	15.42	A
	ATOM	1009	CB	LEU	A	193	42.884	16.712	22.600	1.00	12.88	A
	ATOM	1010	CG	LEU	A	193	42.445	17.721	21.525	1.00	15.97	A
50	ATOM	1011	CD1	LEU	A	193	41.869	18.979	22.190	1.00	13.97	A
	ATOM	1012	CD2	LEU	A	193	43.642	18.088	20.655	1.00	14.58	A
	ATOM	1013	C	LEU	A	193	44.211	14.659	23.174	1.00	14.49	A
	ATOM	1014	O	LEU	A	193	45.427	14.813	23.310	1.00	16.56	A
	ATOM	1015	N	GLU	A	194	43.500	13.870	23.975	1.00	13.96	A
55	ATOM	1016	CA	GLU	A	194	44.179	13.123	25.032	1.00	14.08	A
	ATOM	1017	CB	GLU	A	194	43.190	12.295	25.857	1.00	14.65	A
	ATOM	1018	CG	GLU	A	194	43.882	11.301	26.789	1.00	17.09	A
	ATOM	1019	CD	GLU	A	194	42.924	10.592	27.730	1.00	19.59	A
	ATOM	1020	OE1	GLU	A	194	41.809	10.237	27.295	1.00	19.25	A

	ATOM	1021	OE2	GLU	A	194	43.302	10.380	28.906	1.00	20.20	A
	ATOM	1022	C	GLU	A	194	45.208	12.199	24.386	1.00	13.57	A
	ATOM	1023	O	GLU	A	194	46.337	12.093	24.847	1.00	14.23	A
	ATOM	1024	N	TYR	A	195	44.822	11.544	23.301	1.00	14.89	A
5	ATOM	1025	CA	TYR	A	195	45.743	10.642	22.618	1.00	16.58	A
	ATOM	1026	CB	TYR	A	195	45.030	9.910	21.488	1.00	17.29	A
	ATOM	1027	CG	TYR	A	195	45.956	9.058	20.649	1.00	17.92	A
	ATOM	1028	CD1	TYR	A	195	46.347	7.788	21.077	1.00	17.96	A
	ATOM	1029	CE1	TYR	A	195	47.203	6.996	20.304	1.00	19.77	A
10	ATOM	1030	CD2	TYR	A	195	46.445	9.524	19.428	1.00	16.67	A
	ATOM	1031	CE2	TYR	A	195	47.299	8.744	18.650	1.00	18.51	A
	ATOM	1032	CZ	TYR	A	195	47.671	7.481	19.094	1.00	20.24	A
	ATOM	1033	OH	TYR	A	195	48.506	6.705	18.325	1.00	21.89	A
	ATOM	1034	C	TYR	A	195	46.917	11.419	22.035	1.00	16.98	A
15	ATOM	1035	O	TYR	A	195	48.081	11.047	22.203	1.00	14.61	A
	ATOM	1036	N	LEU	A	196	46.599	12.507	21.347	1.00	16.30	A
	ATOM	1037	CA	LEU	A	196	47.619	13.328	20.720	1.00	18.15	A
	ATOM	1038	CB	LEU	A	196	46.969	14.502	19.982	1.00	18.59	A
	ATOM	1039	CG	LEU	A	196	47.834	15.203	18.935	1.00	22.51	A
20	ATOM	1040	CD1	LEU	A	196	48.222	14.206	17.841	1.00	20.94	A
	ATOM	1041	CD2	LEU	A	196	47.060	16.375	18.338	1.00	22.98	A
	ATOM	1042	C	LEU	A	196	48.592	13.844	21.763	1.00	17.75	A
	ATOM	1043	O	LEU	A	196	49.801	13.644	21.649	1.00	18.33	A
	ATOM	1044	N	HIS	A	197	48.064	14.495	22.792	1.00	17.12	A
25	ATOM	1045	CA	HIS	A	197	48.913	15.042	23.842	1.00	18.47	A
	ATOM	1046	CB	HIS	A	197	48.069	15.866	24.817	1.00	15.90	A
	ATOM	1047	CG	HIS	A	197	47.571	17.152	24.231	1.00	19.15	A
	ATOM	1048	CD2	HIS	A	197	47.830	17.745	23.038	1.00	18.22	A
	ATOM	1049	ND1	HIS	A	197	46.704	17.992	24.897	1.00	17.47	A
30	ATOM	1050	CE1	HIS	A	197	46.450	19.047	24.139	1.00	19.74	A
	ATOM	1051	NE2	HIS	A	197	47.119	18.921	23.007	1.00	15.69	A
	ATOM	1052	C	HIS	A	197	49.696	13.958	24.572	1.00	19.40	A
	ATOM	1053	O	HIS	A	197	50.823	14.192	25.021	1.00	19.42	A
	ATOM	1054	N	GLY	A	198	49.106	12.770	24.679	1.00	18.59	A
35	ATOM	1055	CA	GLY	A	198	49.793	11.675	25.339	1.00	19.60	A
	ATOM	1056	C	GLY	A	198	51.075	11.307	24.612	1.00	21.86	A
	ATOM	1057	O	GLY	A	198	51.963	10.682	25.186	1.00	23.09	A
	ATOM	1058	N	LYS	A	199	51.174	11.687	23.341	1.00	22.81	A
	ATOM	1059	CA	LYS	A	199	52.368	11.401	22.549	1.00	24.43	A
40	ATOM	1060	CB	LYS	A	199	51.990	10.905	21.154	1.00	26.00	A
	ATOM	1061	CG	LYS	A	199	51.378	9.520	21.133	1.00	30.98	A
	ATOM	1062	CD	LYS	A	199	51.291	9.002	19.708	1.00	36.85	A
	ATOM	1063	CE	LYS	A	199	50.832	7.559	19.682	1.00	40.37	A
	ATOM	1064	NZ	LYS	A	199	51.646	6.691	20.581	1.00	43.48	A
45	ATOM	1065	C	LYS	A	199	53.253	12.631	22.414	1.00	23.88	A
	ATOM	1066	O	LYS	A	199	54.144	12.669	21.568	1.00	24.97	A
	ATOM	1067	N	GLY	A	200	52.997	13.638	23.243	1.00	24.00	A
	ATOM	1068	CA	GLY	A	200	53.790	14.853	23.203	1.00	22.12	A
	ATOM	1069	C	GLY	A	200	53.665	15.632	21.907	1.00	22.14	A
50	ATOM	1070	O	GLY	A	200	54.632	16.231	21.439	1.00	22.41	A
	ATOM	1071	N	ILE	A	201	52.475	15.630	21.320	1.00	20.00	A
	ATOM	1072	CA	ILE	A	201	52.252	16.355	20.080	1.00	18.93	A
	ATOM	1073	CB	ILE	A	201	51.784	15.414	18.955	1.00	19.70	A
	ATOM	1074	CG2	ILE	A	201	51.414	16.226	17.716	1.00	20.12	A
55	ATOM	1075	CG1	ILE	A	201	52.880	14.395	18.636	1.00	20.03	A
	ATOM	1076	CD1	ILE	A	201	52.408	13.258	17.745	1.00	22.75	A
	ATOM	1077	C	ILE	A	201	51.193	17.425	20.270	1.00	19.87	A
	ATOM	1078	O	ILE	A	201	50.121	17.161	20.817	1.00	20.08	A
	ATOM	1079	N	ILE	A	202	51.508	18.633	19.815	1.00	19.94	A

	ATOM	1080	CA	ILE A 202	50.601	19.772	19.891	1.00	20.45	A
	ATOM	1081	CB	ILE A 202	51.352	21.040	20.356	1.00	22.21	A
	ATOM	1082	CG2	ILE A 202	50.381	22.220	20.470	1.00	22.67	A
	ATOM	1083	CG1	ILE A 202	52.033	20.775	21.700	1.00	24.19	A
5	ATOM	1084	CD1	ILE A 202	52.914	21.920	22.169	1.00	25.39	A
	ATOM	1085	C	ILE A 202	50.105	19.999	18.464	1.00	20.71	A
	ATOM	1086	O	ILE A 202	50.910	20.067	17.538	1.00	19.48	A
	ATOM	1087	N	HIS A 203	48.795	20.108	18.270	1.00	18.65	A
	ATOM	1088	CA	HIS A 203	48.280	20.319	16.919	1.00	18.02	A
10	ATOM	1089	CB	HIS A 203	46.775	20.057	16.874	1.00	16.31	A
	ATOM	1090	CG	HIS A 203	46.199	20.136	15.495	1.00	18.36	A
	ATOM	1091	CD2	HIS A 203	46.043	21.186	14.655	1.00	16.42	A
	ATOM	1092	ND1	HIS A 203	45.759	19.026	14.806	1.00	19.50	A
	ATOM	1093	CE1	HIS A 203	45.359	19.389	13.600	1.00	17.64	A
15	ATOM	1094	NE2	HIS A 203	45.522	20.694	13.483	1.00	20.87	A
	ATOM	1095	C	HIS A 203	48.589	21.738	16.405	1.00	18.92	A
	ATOM	1096	O	HIS A 203	49.073	21.906	15.282	1.00	16.21	A
	ATOM	1097	N	ARG A 204	48.301	22.744	17.232	1.00	18.60	A
	ATOM	1098	CA	ARG A 204	48.552	24.157	16.914	1.00	19.81	A
20	ATOM	1099	CB	ARG A 204	49.998	24.365	16.458	1.00	21.61	A
	ATOM	1100	CG	ARG A 204	51.024	24.137	17.550	1.00	23.82	A
	ATOM	1101	CD	ARG A 204	52.323	24.870	17.252	1.00	27.62	A
	ATOM	1102	NE	ARG A 204	52.932	24.449	15.994	1.00	29.43	A
	ATOM	1103	CZ	ARG A 204	54.125	24.861	15.572	1.00	33.10	A
25	ATOM	1104	NH1	ARG A 204	54.835	25.706	16.311	1.00	32.12	A
	ATOM	1105	NH2	ARG A 204	54.614	24.426	14.418	1.00	30.25	A
	ATOM	1106	C	ARG A 204	47.624	24.830	15.905	1.00	20.03	A
	ATOM	1107	O	ARG A 204	47.711	26.038	15.698	1.00	20.88	A
	ATOM	1108	N	ASP A 205	46.755	24.071	15.255	1.00	18.96	A
30	ATOM	1109	CA	ASP A 205	45.828	24.692	14.325	1.00	17.90	A
	ATOM	1110	CB	ASP A 205	46.418	24.741	12.914	1.00	18.95	A
	ATOM	1111	CG	ASP A 205	45.655	25.688	12.008	1.00	20.36	A
	ATOM	1112	OD1	ASP A 205	44.939	26.560	12.545	1.00	20.35	A
	ATOM	1113	OD2	ASP A 205	45.772	25.573	10.771	1.00	22.49	A
35	ATOM	1114	C	ASP A 205	44.500	23.956	14.328	1.00	19.60	A
	ATOM	1115	O	ASP A 205	43.876	23.751	13.287	1.00	21.53	A
	ATOM	1116	N	LEU A 206	44.063	23.569	15.521	1.00	18.53	A
	ATOM	1117	CA	LEU A 206	42.813	22.851	15.667	1.00	19.18	A
	ATOM	1118	CB	LEU A 206	42.693	22.295	17.087	1.00	18.94	A
40	ATOM	1119	CG	LEU A 206	41.511	21.358	17.346	1.00	23.10	A
	ATOM	1120	CD1	LEU A 206	41.615	20.142	16.436	1.00	23.01	A
	ATOM	1121	CD2	LEU A 206	41.504	20.933	18.808	1.00	22.97	A
	ATOM	1122	C	LEU A 206	41.639	23.772	15.361	1.00	19.05	A
	ATOM	1123	O	LEU A 206	41.556	24.880	15.886	1.00	19.25	A
45	ATOM	1124	N	LYS A 207	40.740	23.307	14.500	1.00	17.54	A
	ATOM	1125	CA	LYS A 207	39.564	24.081	14.110	1.00	18.60	A
	ATOM	1126	CB	LYS A 207	39.980	25.248	13.196	1.00	18.98	A
	ATOM	1127	CG	LYS A 207	40.786	24.817	11.982	1.00	18.20	A
	ATOM	1128	CD	LYS A 207	41.246	26.000	11.139	1.00	21.42	A
50	ATOM	1129	CE	LYS A 207	42.223	25.537	10.062	1.00	23.21	A
	ATOM	1130	NZ	LYS A 207	42.561	26.604	9.084	1.00	29.61	A
	ATOM	1131	C	LYS A 207	38.566	23.181	13.388	1.00	18.18	A
	ATOM	1132	O	LYS A 207	38.921	22.100	12.915	1.00	18.11	A
	ATOM	1133	N	PRO A 208	37.298	23.614	13.293	1.00	20.26	A
55	ATOM	1134	CD	PRO A 208	36.713	24.833	13.882	1.00	18.79	A
	ATOM	1135	CA	PRO A 208	36.272	22.814	12.616	1.00	19.67	A
	ATOM	1136	CB	PRO A 208	35.063	23.742	12.608	1.00	19.45	A
	ATOM	1137	CG	PRO A 208	35.231	24.509	13.891	1.00	21.81	A
	ATOM	1138	C	PRO A 208	36.674	22.372	11.209	1.00	21.04	A

	ATOM	1139	O	PRO A 208	36.264	21.307	10.751	1.00	21.19	A
	ATOM	1140	N	GLU A 209	37.474	23.188	10.528	1.00	21.69	A
	ATOM	1141	CA	GLU A 209	37.928	22.872	9.170	1.00	22.64	A
	ATOM	1142	CB	GLU A 209	38.644	24.084	8.558	1.00	23.65	A
5	ATOM	1143	CG	GLU A 209	39.253	23.825	7.185	1.00	27.24	A
	ATOM	1144	CD	GLU A 209	40.155	24.958	6.716	1.00	29.40	A
	ATOM	1145	OE1	GLU A 209	39.660	26.094	6.553	1.00	29.68	A
	ATOM	1146	OE2	GLU A 209	41.363	24.711	6.511	1.00	30.07	A
	ATOM	1147	C	GLU A 209	38.879	21.668	9.159	1.00	22.28	A
10	ATOM	1148	O	GLU A 209	38.955	20.933	8.170	1.00	21.36	A
	ATOM	1149	N	ASN A 210	39.600	21.490	10.263	1.00	19.90	A
	ATOM	1150	CA	ASN A 210	40.574	20.412	10.436	1.00	19.44	A
	ATOM	1151	CB	ASN A 210	41.744	20.912	11.287	1.00	20.07	A
	ATOM	1152	CG	ASN A 210	42.746	21.698	10.479	1.00	25.77	A
15	ATOM	1153	OD1	ASN A 210	43.571	22.427	11.029	1.00	26.73	A
	ATOM	1154	ND2	ASN A 210	42.687	21.548	9.158	1.00	25.15	A
	ATOM	1155	C	ASN A 210	40.005	19.151	11.078	1.00	18.63	A
	ATOM	1156	O	ASN A 210	40.712	18.154	11.234	1.00	18.29	A
	ATOM	1157	N	ILE A 211	38.739	19.202	11.469	1.00	16.31	A
20	ATOM	1158	CA	ILE A 211	38.090	18.058	12.085	1.00	15.49	A
	ATOM	1159	CB	ILE A 211	37.336	18.488	13.354	1.00	15.40	A
	ATOM	1160	CG2	ILE A 211	36.582	17.311	13.950	1.00	14.59	A
	ATOM	1161	CG1	ILE A 211	38.342	19.046	14.365	1.00	15.91	A
	ATOM	1162	CD1	ILE A 211	37.720	19.669	15.590	1.00	15.98	A
25	ATOM	1163	C	ILE A 211	37.131	17.485	11.059	1.00	17.26	A
	ATOM	1164	O	ILE A 211	35.995	17.947	10.926	1.00	18.16	A
	ATOM	1165	N	LEU A 212	37.599	16.486	10.317	1.00	15.97	A
	ATOM	1166	CA	LEU A 212	36.784	15.875	9.274	1.00	17.08	A
	ATOM	1167	CB	LEU A 212	37.685	15.249	8.202	1.00	17.78	A
30	ATOM	1168	CG	LEU A 212	38.785	16.157	7.640	1.00	18.92	A
	ATOM	1169	CD1	LEU A 212	39.476	15.450	6.485	1.00	22.09	A
	ATOM	1170	CD2	LEU A 212	38.188	17.482	7.166	1.00	19.91	A
	ATOM	1171	C	LEU A 212	35.843	14.825	9.837	1.00	18.35	A
	ATOM	1172	O	LEU A 212	35.957	14.433	11.002	1.00	19.39	A
35	ATOM	1173	N	LEU A 213	34.915	14.368	9.000	1.00	17.84	A
	ATOM	1174	CA	LEU A 213	33.942	13.362	9.403	1.00	19.94	A
	ATOM	1175	CB	LEU A 213	32.556	14.004	9.487	1.00	20.84	A
	ATOM	1176	CG	LEU A 213	32.396	15.059	10.583	1.00	20.31	A
	ATOM	1177	CD1	LEU A 213	31.124	15.837	10.367	1.00	22.75	A
40	ATOM	1178	CD2	LEU A 213	32.379	14.378	11.940	1.00	23.93	A
	ATOM	1179	C	LEU A 213	33.914	12.187	8.426	1.00	20.98	A
	ATOM	1180	O	LEU A 213	33.743	12.379	7.218	1.00	19.55	A
	ATOM	1181	N	ASN A 214	34.088	10.970	8.935	1.00	20.44	A
	ATOM	1182	CA	ASN A 214	34.055	9.814	8.049	1.00	23.77	A
45	ATOM	1183	CB	ASN A 214	34.745	8.596	8.674	1.00	25.30	A
	ATOM	1184	CG	ASN A 214	34.077	8.127	9.948	1.00	32.04	A
	ATOM	1185	OD1	ASN A 214	32.908	8.422	10.206	1.00	34.43	A
	ATOM	1186	ND2	ASN A 214	34.818	7.369	10.752	1.00	33.85	A
	ATOM	1187	C	ASN A 214	32.618	9.466	7.693	1.00	24.07	A
50	ATOM	1188	O	ASN A 214	31.672	10.113	8.150	1.00	19.94	A
	ATOM	1189	N	GLU A 215	32.459	8.433	6.879	1.00	25.77	A
	ATOM	1190	CA	GLU A 215	31.138	8.003	6.445	1.00	28.69	A
	ATOM	1191	CB	GLU A 215	31.275	6.796	5.513	1.00	31.98	A
	ATOM	1192	CG	GLU A 215	29.970	6.334	4.896	1.00	40.22	A
55	ATOM	1193	CD	GLU A 215	30.182	5.312	3.795	1.00	44.27	A
	ATOM	1194	OE1	GLU A 215	30.817	4.268	4.065	1.00	46.46	A
	ATOM	1195	OE2	GLU A 215	29.716	5.556	2.660	1.00	46.13	A
	ATOM	1196	C	GLU A 215	30.188	7.673	7.601	1.00	28.41	A
	ATOM	1197	O	GLU A 215	28.971	7.769	7.447	1.00	28.52	A

	ATOM	1198	N	ASP	A	216	30.737	7.287	8.752	1.00	26.77	A
	ATOM	1199	CA	ASP	A	216	29.914	6.953	9.917	1.00	27.28	A
	ATOM	1200	CB	ASP	A	216	30.538	5.795	10.696	1.00	31.27	A
	ATOM	1201	CG	ASP	A	216	30.390	4.466	9.979	1.00	37.61	A
5	ATOM	1202	OD1	ASP	A	216	29.274	4.170	9.499	1.00	39.45	A
	ATOM	1203	OD2	ASP	A	216	31.382	3.710	9.902	1.00	41.84	A
	ATOM	1204	C	ASP	A	216	29.697	8.135	10.862	1.00	26.37	A
	ATOM	1205	O	ASP	A	216	29.136	7.984	11.950	1.00	25.73	A
	ATOM	1206	N	MET	A	217	30.156	9.306	10.441	1.00	23.02	A
10	ATOM	1207	CA	MET	A	217	30.015	10.527	11.218	1.00	21.83	A
	ATOM	1208	CB	MET	A	217	28.537	10.789	11.517	1.00	23.24	A
	ATOM	1209	CG	MET	A	217	27.742	11.186	10.274	1.00	22.98	A
	ATOM	1210	SD	MET	A	217	28.464	12.616	9.430	1.00	27.57	A
	ATOM	1211	CE	MET	A	217	27.679	13.974	10.332	1.00	26.68	A
15	ATOM	1212	C	MET	A	217	30.844	10.618	12.502	1.00	21.51	A
	ATOM	1213	O	MET	A	217	30.474	11.323	13.440	1.00	18.62	A
	ATOM	1214	N	HIS	A	218	31.957	9.892	12.544	1.00	20.10	A
	ATOM	1215	CA	HIS	A	218	32.873	9.964	13.678	1.00	19.86	A
	ATOM	1216	CB	HIS	A	218	33.482	8.594	13.977	1.00	20.21	A
20	ATOM	1217	CG	HIS	A	218	32.551	7.667	14.698	1.00	22.40	A
	ATOM	1218	CD2	HIS	A	218	31.910	6.547	14.287	1.00	21.27	A
	ATOM	1219	ND1	HIS	A	218	32.177	7.863	16.011	1.00	19.59	A
	ATOM	1220	CE1	HIS	A	218	31.348	6.902	16.379	1.00	21.88	A
	ATOM	1221	NE2	HIS	A	218	31.168	6.091	15.351	1.00	22.08	A
25	ATOM	1222	C	HIS	A	218	33.947	10.921	13.172	1.00	19.10	A
	ATOM	1223	O	HIS	A	218	34.170	11.004	11.965	1.00	20.31	A
	ATOM	1224	N	ILE	A	219	34.617	11.638	14.067	1.00	17.21	A
	ATOM	1225	CA	ILE	A	219	35.628	12.586	13.618	1.00	15.26	A
	ATOM	1226	CB	ILE	A	219	35.987	13.614	14.716	1.00	15.38	A
30	ATOM	1227	CG2	ILE	A	219	34.722	14.305	15.221	1.00	14.58	A
	ATOM	1228	CG1	ILE	A	219	36.734	12.919	15.864	1.00	14.46	A
	ATOM	1229	CD1	ILE	A	219	37.279	13.885	16.911	1.00	13.74	A
	ATOM	1230	C	ILE	A	219	36.929	11.944	13.161	1.00	16.21	A
	ATOM	1231	O	ILE	A	219	37.238	10.799	13.500	1.00	15.88	A
35	ATOM	1232	N	GLN	A	220	37.677	12.711	12.378	1.00	15.62	A
	ATOM	1233	CA	GLN	A	220	38.980	12.316	11.876	1.00	17.84	A
	ATOM	1234	CB	GLN	A	220	38.872	11.595	10.525	1.00	20.00	A
	ATOM	1235	CG	GLN	A	220	38.463	10.129	10.659	1.00	26.97	A
	ATOM	1236	CD	GLN	A	220	38.648	9.343	9.372	1.00	29.95	A
40	ATOM	1237	OE1	GLN	A	220	37.968	9.590	8.373	1.00	33.12	A
	ATOM	1238	NE2	GLN	A	220	39.578	8.393	9.389	1.00	30.47	A
	ATOM	1239	C	GLN	A	220	39.757	13.610	11.735	1.00	17.00	A
	ATOM	1240	O	GLN	A	220	39.609	14.339	10.751	1.00	18.27	A
	ATOM	1241	N	ILE	A	221	40.566	13.906	12.746	1.00	14.34	A
45	ATOM	1242	CA	ILE	A	221	41.361	15.120	12.753	1.00	14.46	A
	ATOM	1243	CB	ILE	A	221	41.867	15.416	14.175	1.00	12.30	A
	ATOM	1244	CG2	ILE	A	221	42.764	16.656	14.167	1.00	14.78	A
	ATOM	1245	CG1	ILE	A	221	40.660	15.613	15.102	1.00	13.92	A
	ATOM	1246	CD1	ILE	A	221	41.003	15.901	16.543	1.00	15.06	A
50	ATOM	1247	C	ILE	A	221	42.536	14.996	11.783	1.00	15.44	A
	ATOM	1248	O	ILE	A	221	43.106	13.915	11.613	1.00	13.93	A
	ATOM	1249	N	THR	A	222	42.877	16.101	11.127	1.00	15.36	A
	ATOM	1250	CA	THR	A	222	43.980	16.098	10.174	1.00	17.52	A
	ATOM	1251	CB	THR	A	222	43.470	15.836	8.750	1.00	19.92	A
55	ATOM	1252	OG1	THR	A	222	44.587	15.637	7.875	1.00	18.78	A
	ATOM	1253	CG2	THR	A	222	42.630	17.018	8.257	1.00	18.16	A
	ATOM	1254	C	THR	A	222	44.735	17.428	10.192	1.00	19.60	A
	ATOM	1255	O	THR	A	222	44.509	18.257	11.084	1.00	18.59	A
	ATOM	1256	N	ASP	A	223	45.630	17.610	9.216	1.00	18.69	A

	ATOM	1257	CA	ASP A 223	46.440	18.825	9.069	1.00 20.12	A
	ATOM	1258	CB	ASP A 223	45.532	20.065	9.108	1.00 23.51	A
	ATOM	1259	CG	ASP A 223	46.248	21.335	8.670	1.00 27.09	A
	ATOM	1260	OD1	ASP A 223	47.283	21.227	7.975	1.00 26.28	A
5	ATOM	1261	OD2	ASP A 223	45.765	22.438	9.009	1.00 26.15	A
	ATOM	1262	C	ASP A 223	47.516	18.913	10.150	1.00 21.73	A
	ATOM	1263	O	ASP A 223	47.439	19.751	11.055	1.00 22.76	A
	ATOM	1264	N	PHE A 224	48.535	18.063	10.027	1.00 20.75	A
	ATOM	1265	CA	PHE A 224	49.611	17.988	11.009	1.00 20.11	A
10	ATOM	1266	CB	PHE A 224	49.805	16.527	11.424	1.00 20.62	A
	ATOM	1267	CG	PHE A 224	48.682	15.991	12.263	1.00 21.41	A
	ATOM	1268	CD1	PHE A 224	48.598	16.312	13.614	1.00 23.05	A
	ATOM	1269	CD2	PHE A 224	47.681	15.212	11.693	1.00 22.27	A
	ATOM	1270	CE1	PHE A 224	47.528	15.868	14.389	1.00 23.30	A
15	ATOM	1271	CE2	PHE A 224	46.606	14.763	12.457	1.00 21.11	A
	ATOM	1272	CZ	PHE A 224	46.530	15.093	13.807	1.00 22.02	A
	ATOM	1273	C	PHE A 224	50.957	18.583	10.619	1.00 20.45	A
	ATOM	1274	O	PHE A 224	51.905	18.547	11.407	1.00 20.73	A
	ATOM	1275	N	GLY A 225	51.049	19.125	9.412	1.00 22.02	A
20	ATOM	1276	CA	GLY A 225	52.301	19.713	8.981	1.00 22.66	A
	ATOM	1277	C	GLY A 225	52.742	20.822	9.920	1.00 24.99	A
	ATOM	1278	O	GLY A 225	53.939	21.041	10.122	1.00 24.52	A
	ATOM	1279	N	THR A 226	51.779	21.524	10.508	1.00 23.50	A
	ATOM	1280	CA	THR A 226	52.106	22.613	11.416	1.00 25.16	A
25	ATOM	1281	CB	THR A 226	51.199	23.829	11.160	1.00 24.76	A
	ATOM	1282	OG1	THR A 226	49.831	23.410	11.113	1.00 22.68	A
	ATOM	1283	CG2	THR A 226	51.571	24.490	9.834	1.00 25.00	A
	ATOM	1284	C	THR A 226	52.046	22.233	12.894	1.00 25.79	A
	ATOM	1285	O	THR A 226	52.019	23.100	13.768	1.00 24.54	A
30	ATOM	1286	N	ALA A 227	52.037	20.935	13.173	1.00 24.97	A
	ATOM	1287	CA	ALA A 227	52.004	20.475	14.550	1.00 25.49	A
	ATOM	1288	CB	ALA A 227	51.659	18.993	14.607	1.00 22.85	A
	ATOM	1289	C	ALA A 227	53.384	20.715	15.149	1.00 27.70	A
	ATOM	1290	O	ALA A 227	54.331	21.047	14.435	1.00 26.60	A
35	ATOM	1291	N	LYS A 228	53.491	20.558	16.461	1.00 28.53	A
	ATOM	1292	CA	LYS A 228	54.760	20.745	17.149	1.00 32.12	A
	ATOM	1293	CB	LYS A 228	54.699	21.974	18.054	1.00 33.81	A
	ATOM	1294	CG	LYS A 228	56.007	22.294	18.765	1.00 41.23	A
	ATOM	1295	CD	LYS A 228	57.082	22.725	17.768	1.00 47.57	A
40	ATOM	1296	CE	LYS A 228	58.401	23.056	18.462	1.00 49.82	A
	ATOM	1297	NZ	LYS A 228	59.459	23.425	17.480	1.00 51.49	A
	ATOM	1298	C	LYS A 228	55.019	19.504	17.985	1.00 33.25	A
	ATOM	1299	O	LYS A 228	54.190	19.129	18.815	1.00 33.70	A
	ATOM	1300	N	VAL A 229	56.159	18.860	17.756	1.00 33.64	A
45	ATOM	1301	CA	VAL A 229	56.516	17.661	18.501	1.00 34.66	A
	ATOM	1302	CB	VAL A 229	57.248	16.646	17.609	1.00 33.50	A
	ATOM	1303	CG1	VAL A 229	57.619	15.419	18.415	1.00 32.34	A
	ATOM	1304	CG2	VAL A 229	56.370	16.264	16.436	1.00 34.25	A
	ATOM	1305	C	VAL A 229	57.420	18.035	19.668	1.00 37.57	A
50	ATOM	1306	O	VAL A 229	58.581	18.392	19.474	1.00 35.91	A
	ATOM	1307	N	LEU A 230	56.877	17.948	20.878	1.00 40.57	A
	ATOM	1308	CA	LEU A 230	57.615	18.289	22.088	1.00 46.10	A
	ATOM	1309	CB	LEU A 230	56.654	18.417	23.270	1.00 44.71	A
	ATOM	1310	CG	LEU A 230	55.627	19.545	23.207	1.00 44.50	A
55	ATOM	1311	CD1	LEU A 230	54.673	19.430	24.383	1.00 44.39	A
	ATOM	1312	CD2	LEU A 230	56.340	20.885	23.214	1.00 44.81	A
	ATOM	1313	C	LEU A 230	58.695	17.279	22.440	1.00 50.42	A
	ATOM	1314	O	LEU A 230	58.603	16.104	22.089	1.00 51.64	A
	ATOM	1315	N	SER A 231	59.717	17.756	23.145	1.00 55.81	A

	ATOM	1316	CA	SER	A	231	60.824	16.914	23.583	1.00 61.14	A
	ATOM	1317	CB	SER	A	231	62.077	17.200	22.750	1.00 61.27	A
	ATOM	1318	OG	SER	A	231	62.444	18.568	22.823	1.00 62.85	A
	ATOM	1319	C	SER	A	231	61.124	17.126	25.071	1.00 64.65	A
5	ATOM	1320	O	SER	A	231	61.392	16.164	25.794	1.00 65.70	A
	ATOM	1321	N	PRO	A	232	61.081	18.387	25.549	1.00 67.54	A
	ATOM	1322	CD	PRO	A	232	60.854	19.651	24.823	1.00 68.60	A
	ATOM	1323	CA	PRO	A	232	61.358	18.655	26.966	1.00 68.74	A
	ATOM	1324	CB	PRO	A	232	61.109	20.158	27.086	1.00 68.83	A
10	ATOM	1325	CG	PRO	A	232	61.505	20.666	25.737	1.00 68.96	A
	ATOM	1326	C	PRO	A	232	60.460	17.846	27.899	1.00 69.17	A
	ATOM	1327	O	PRO	A	232	59.335	17.494	27.541	1.00 69.94	A
	ATOM	1328	N	ALA	A	237	57.424	23.198	27.637	1.00 80.06	A
	ATOM	1329	CA	ALA	A	237	56.783	23.047	26.335	1.00 79.29	A
15	ATOM	1330	CB	ALA	A	237	55.275	22.907	26.512	1.00 78.64	A
	ATOM	1331	C	ALA	A	237	57.092	24.239	25.433	1.00 79.07	A
	ATOM	1332	O	ALA	A	237	56.250	25.113	25.249	1.00 79.47	A
	ATOM	1333	N	ALA	A	238	58.297	24.280	24.871	1.00 78.57	A
	ATOM	1334	CA	ALA	A	238	58.683	25.383	23.992	1.00 78.50	A
20	ATOM	1335	CB	ALA	A	238	60.186	25.347	23.728	1.00 78.50	A
	ATOM	1336	C	ALA	A	238	57.920	25.327	22.673	1.00 78.15	A
	ATOM	1337	O	ALA	A	238	57.243	24.341	22.375	1.00 77.96	A
	ATOM	1338	N	ALA	A	239	58.027	26.393	21.887	1.00 77.28	A
	ATOM	1339	CA	ALA	A	239	57.338	26.452	20.603	1.00 76.27	A
25	ATOM	1340	CB	ALA	A	239	55.849	26.489	20.827	1.00 76.61	A
	ATOM	1341	C	ALA	A	239	57.766	27.667	19.793	1.00 75.38	A
	ATOM	1342	O	ALA	A	239	58.955	27.955	19.700	1.00 75.89	A
	ATOM	1343	N	ASN	A	240	56.781	28.357	19.214	1.00 73.95	A
	ATOM	1344	CA	ASN	A	240	56.967	29.553	18.389	1.00 71.07	A
30	ATOM	1345	CB	ASN	A	240	58.151	30.400	18.874	1.00 71.47	A
	ATOM	1346	CG	ASN	A	240	59.459	30.055	18.174	1.00 72.06	A
	ATOM	1347	OD1	ASN	A	240	59.575	30.149	16.943	1.00 72.03	A
	ATOM	1348	ND2	ASN	A	240	60.470	29.665	18.964	1.00 71.91	A
	ATOM	1349	C	ASN	A	240	57.188	29.178	16.928	1.00 69.41	A
35	ATOM	1350	O	ASN	A	240	57.480	28.024	16.624	1.00 70.09	A
	ATOM	1351	N	ALA	A	241	57.055	30.165	16.038	1.00 66.62	A
	ATOM	1352	CA	ALA	A	241	57.246	30.013	14.585	1.00 63.94	A
	ATOM	1353	C	ALA	A	241	55.952	30.080	13.772	1.00 60.63	A
	ATOM	1354	O	ALA	A	241	55.840	30.880	12.845	1.00 61.29	A
40	ATOM	1355	CB	ALA	A	241	57.979	28.704	14.246	1.00 65.23	A
	ATOM	1356	N	PHE	A	242	54.984	29.236	14.113	1.00 56.72	A
	ATOM	1357	CA	PHE	A	242	53.712	29.196	13.394	1.00 52.53	A
	ATOM	1358	CB	PHE	A	242	53.419	27.767	12.923	1.00 49.14	A
	ATOM	1359	CG	PHE	A	242	52.040	27.590	12.354	1.00 47.38	A
45	ATOM	1360	CD1	PHE	A	242	51.731	28.067	11.085	1.00 47.69	A
	ATOM	1361	CD2	PHE	A	242	51.038	26.975	13.102	1.00 45.45	A
	ATOM	1362	CE1	PHE	A	242	50.445	27.937	10.565	1.00 46.75	A
	ATOM	1363	CE2	PHE	A	242	49.751	26.840	12.594	1.00 45.41	A
	ATOM	1364	CZ	PHE	A	242	49.453	27.323	11.322	1.00 46.55	A
50	ATOM	1365	C	PHE	A	242	52.534	29.688	14.229	1.00 50.08	A
	ATOM	1366	O	PHE	A	242	52.502	29.505	15.444	1.00 49.86	A
	ATOM	1367	N	VAL	A	243	51.566	30.305	13.557	1.00 47.67	A
	ATOM	1368	CA	VAL	A	243	50.355	30.809	14.200	1.00 46.21	A
	ATOM	1369	CB	VAL	A	243	50.340	32.352	14.258	1.00 47.36	A
55	ATOM	1370	CG1	VAL	A	243	49.012	32.844	14.825	1.00 47.54	A
	ATOM	1371	CG2	VAL	A	243	51.497	32.842	15.109	1.00 48.50	A
	ATOM	1372	C	VAL	A	243	49.150	30.342	13.389	1.00 44.12	A
	ATOM	1373	O	VAL	A	243	48.956	30.765	12.247	1.00 44.46	A
	ATOM	1374	N	GLY	A	244	48.348	29.467	13.985	1.00 40.48	A

	ATOM	1375	CA	GLY A 244	47.176	28.941	13.306	1.00	37.65	A
	ATOM	1376	C	GLY A 244	46.101	29.960	12.964	1.00	35.39	A
	ATOM	1377	O	GLY A 244	46.313	31.168	13.065	1.00	35.92	A
	ATOM	1378	N	THR A 245	44.936	29.463	12.560	1.00	33.30	A
5	ATOM	1379	CA	THR A 245	43.813	30.312	12.184	1.00	30.20	A
	ATOM	1380	CB	THR A 245	42.593	29.450	11.829	1.00	32.00	A
	ATOM	1381	OG1	THR A 245	42.952	28.573	10.755	1.00	32.81	A
	ATOM	1382	CG2	THR A 245	41.419	30.319	11.390	1.00	28.34	A
	ATOM	1383	C	THR A 245	43.476	31.296	13.296	1.00	27.96	A
10	ATOM	1384	O	THR A 245	43.212	30.907	14.434	1.00	25.46	A
	ATOM	1385	N	ALA A 246	43.486	32.576	12.938	1.00	25.22	A
	ATOM	1386	CA	ALA A 246	43.247	33.675	13.867	1.00	23.27	A
	ATOM	1387	CB	ALA A 246	42.956	34.955	13.082	1.00	22.94	A
	ATOM	1388	C	ALA A 246	42.178	33.475	14.934	1.00	21.27	A
15	ATOM	1389	O	ALA A 246	42.431	33.705	16.114	1.00	20.93	A
	ATOM	1390	N	GLN A 247	40.988	33.047	14.536	1.00	19.67	A
	ATOM	1391	CA	GLN A 247	39.911	32.886	15.504	1.00	20.17	A
	ATOM	1392	CB	GLN A 247	38.608	32.535	14.779	1.00	21.89	A
	ATOM	1393	CG	GLN A 247	38.522	33.076	13.355	1.00	26.18	A
20	ATOM	1394	CD	GLN A 247	37.220	33.794	13.064	1.00	27.30	A
	ATOM	1395	OE1	GLN A 247	36.172	33.447	13.605	1.00	30.13	A
	ATOM	1396	NE2	GLN A 247	37.278	34.792	12.189	1.00	28.70	A
	ATOM	1397	C	GLN A 247	40.181	31.849	16.595	1.00	19.43	A
	ATOM	1398	O	GLN A 247	39.546	31.883	17.648	1.00	18.93	A
25	ATOM	1399	N	TYR A 248	41.132	30.948	16.359	1.00	18.60	A
	ATOM	1400	CA	TYR A 248	41.441	29.896	17.329	1.00	19.20	A
	ATOM	1401	CB	TYR A 248	41.333	28.529	16.642	1.00	17.53	A
	ATOM	1402	CG	TYR A 248	40.013	28.362	15.927	1.00	19.32	A
	ATOM	1403	CD1	TYR A 248	38.859	28.010	16.625	1.00	17.69	A
30	ATOM	1404	CE1	TYR A 248	37.617	27.976	15.990	1.00	18.18	A
	ATOM	1405	CD2	TYR A 248	39.897	28.664	14.569	1.00	16.87	A
	ATOM	1406	CE2	TYR A 248	38.665	28.635	13.924	1.00	19.17	A
	ATOM	1407	CZ	TYR A 248	37.527	28.295	14.643	1.00	19.46	A
	ATOM	1408	OH	TYR A 248	36.299	28.311	14.023	1.00	18.98	A
35	ATOM	1409	C	TYR A 248	42.810	30.039	17.993	1.00	20.42	A
	ATOM	1410	O	TYR A 248	43.208	29.191	18.792	1.00	19.19	A
	ATOM	1411	N	VAL A 249	43.523	31.114	17.673	1.00	20.20	A
	ATOM	1412	CA	VAL A 249	44.841	31.343	18.251	1.00	20.91	A
	ATOM	1413	CB	VAL A 249	45.542	32.532	17.570	1.00	21.18	A
40	ATOM	1414	CG1	VAL A 249	46.821	32.896	18.317	1.00	22.45	A
	ATOM	1415	CG2	VAL A 249	45.862	32.170	16.139	1.00	24.01	A
	ATOM	1416	C	VAL A 249	44.764	31.606	19.750	1.00	21.52	A
	ATOM	1417	O	VAL A 249	43.915	32.368	20.216	1.00	22.72	A
	ATOM	1418	N	SER A 250	45.654	30.965	20.503	1.00	20.70	A
45	ATOM	1419	CA	SER A 250	45.697	31.133	21.951	1.00	21.65	A
	ATOM	1420	CB	SER A 250	46.370	29.919	22.613	1.00	22.02	A
	ATOM	1421	OG	SER A 250	47.692	29.725	22.132	1.00	22.12	A
	ATOM	1422	C	SER A 250	46.476	32.402	22.280	1.00	22.13	A
	ATOM	1423	O	SER A 250	47.332	32.828	21.511	1.00	22.77	A
50	ATOM	1424	N	PRO A 251	46.180	33.029	23.425	1.00	22.23	A
	ATOM	1425	CD	PRO A 251	45.163	32.684	24.433	1.00	22.97	A
	ATOM	1426	CA	PRO A 251	46.893	34.254	23.800	1.00	22.52	A
	ATOM	1427	CB	PRO A 251	46.233	34.650	25.127	1.00	23.06	A
	ATOM	1428	CG	PRO A 251	45.726	33.329	25.676	1.00	22.55	A
55	ATOM	1429	C	PRO A 251	48.414	34.115	23.907	1.00	22.15	A
	ATOM	1430	O	PRO A 251	49.143	35.047	23.563	1.00	22.62	A
	ATOM	1431	N	GLU A 252	48.901	32.966	24.367	1.00	20.69	A
	ATOM	1432	CA	GLU A 252	50.347	32.772	24.500	1.00	21.40	A
	ATOM	1433	CB	GLU A 252	50.673	31.382	25.071	1.00	20.59	A

	ATOM	1434	CG	GLU A 252	49.993	30.232	24.352	1.00	21.91	A
	ATOM	1435	CD	GLU A 252	48.691	29.822	25.014	1.00	21.51	A
	ATOM	1436	OE1	GLU A 252	47.989	30.707	25.550	1.00	21.46	A
	ATOM	1437	OE2	GLU A 252	48.367	28.613	24.993	1.00	20.23	A
5	ATOM	1438	C	GLU A 252	51.071	32.970	23.167	1.00	22.99	A
	ATOM	1439	O	GLU A 252	52.191	33.480	23.136	1.00	23.17	A
	ATOM	1440	N	LEU A 253	50.441	32.576	22.064	1.00	23.00	A
	ATOM	1441	CA	LEU A 253	51.068	32.753	20.758	1.00	25.62	A
	ATOM	1442	CB	LEU A 253	50.277	32.029	19.669	1.00	26.75	A
10	ATOM	1443	CG	LEU A 253	50.743	30.620	19.296	1.00	31.87	A
	ATOM	1444	CD1	LEU A 253	50.433	29.651	20.422	1.00	31.81	A
	ATOM	1445	CD2	LEU A 253	50.044	30.179	18.015	1.00	31.86	A
	ATOM	1446	C	LEU A 253	51.201	34.228	20.371	1.00	26.94	A
	ATOM	1447	O	LEU A 253	52.107	34.601	19.626	1.00	27.09	A
15	ATOM	1448	N	LEU A 254	50.297	35.059	20.877	1.00	25.83	A
	ATOM	1449	CA	LEU A 254	50.297	36.485	20.564	1.00	27.26	A
	ATOM	1450	CB	LEU A 254	48.858	37.006	20.564	1.00	25.84	A
	ATOM	1451	CG	LEU A 254	47.882	36.290	19.621	1.00	24.69	A
	ATOM	1452	CD1	LEU A 254	46.459	36.724	19.932	1.00	23.64	A
20	ATOM	1453	CD2	LEU A 254	48.236	36.597	18.177	1.00	24.24	A
	ATOM	1454	C	LEU A 254	51.134	37.314	21.537	1.00	30.62	A
	ATOM	1455	O	LEU A 254	51.633	38.383	21.187	1.00	32.35	A
	ATOM	1456	N	THR A 255	51.292	36.821	22.758	1.00	32.47	A
	ATOM	1457	CA	THR A 255	52.056	37.547	23.759	1.00	36.70	A
25	ATOM	1458	CB	THR A 255	51.368	37.478	25.127	1.00	34.51	A
	ATOM	1459	OG1	THR A 255	51.188	36.106	25.494	1.00	35.49	A
	ATOM	1460	CG2	THR A 255	50.013	38.166	25.077	1.00	33.40	A
	ATOM	1461	C	THR A 255	53.477	37.035	23.910	1.00	40.09	A
	ATOM	1462	O	THR A 255	54.430	37.793	23.772	1.00	43.69	A
30	ATOM	1463	N	GLU A 256	53.617	35.747	24.189	1.00	44.77	A
	ATOM	1464	CA	GLU A 256	54.932	35.144	24.382	1.00	49.15	A
	ATOM	1465	CB	GLU A 256	54.866	34.143	25.534	1.00	51.24	A
	ATOM	1466	CG	GLU A 256	54.514	34.786	26.862	1.00	56.03	A
	ATOM	1467	CD	GLU A 256	54.053	33.780	27.893	1.00	58.83	A
35	ATOM	1468	OE1	GLU A 256	54.766	32.776	28.107	1.00	62.13	A
	ATOM	1469	OE2	GLU A 256	52.979	33.996	28.494	1.00	60.34	A
	ATOM	1470	C	GLU A 256	55.475	34.456	23.137	1.00	50.09	A
	ATOM	1471	O	GLU A 256	56.616	33.995	23.127	1.00	50.42	A
	ATOM	1472	N	LYS A 257	54.658	34.389	22.090	1.00	51.21	A
40	ATOM	1473	CA	LYS A 257	55.064	33.746	20.845	1.00	51.22	A
	ATOM	1474	CB	LYS A 257	56.244	34.502	20.227	1.00	53.28	A
	ATOM	1475	CG	LYS A 257	56.558	34.125	18.790	1.00	55.19	A
	ATOM	1476	CD	LYS A 257	57.709	34.961	18.253	1.00	57.52	A
	ATOM	1477	CE	LYS A 257	57.952	34.694	16.777	1.00	58.52	A
45	ATOM	1478	NZ	LYS A 257	58.290	33.268	16.515	1.00	60.88	A
	ATOM	1479	C	LYS A 257	55.467	32.302	21.138	1.00	50.74	A
	ATOM	1480	O	LYS A 257	56.432	31.790	20.577	1.00	52.26	A
	ATOM	1481	N	SER A 258	54.721	31.654	22.027	1.00	48.07	A
	ATOM	1482	CA	SER A 258	54.999	30.273	22.402	1.00	46.87	A
50	ATOM	1483	CB	SER A 258	55.590	30.229	23.812	1.00	48.88	A
	ATOM	1484	OG	SER A 258	54.741	30.892	24.734	1.00	53.14	A
	ATOM	1485	C	SER A 258	53.735	29.415	22.342	1.00	44.07	A
	ATOM	1486	O	SER A 258	52.617	29.932	22.417	1.00	44.17	A
	ATOM	1487	N	ALA A 259	53.917	28.105	22.204	1.00	38.30	A
55	ATOM	1488	CA	ALA A 259	52.793	27.180	22.127	1.00	34.73	A
	ATOM	1489	CB	ALA A 259	52.551	26.779	20.684	1.00	34.16	A
	ATOM	1490	C	ALA A 259	53.042	25.940	22.977	1.00	32.34	A
	ATOM	1491	O	ALA A 259	54.172	25.459	23.086	1.00	31.81	A
	ATOM	1492	N	CYS A 260	51.975	25.428	23.579	1.00	28.58	A

	ATOM	1493	CA	CYS A 260	52.056	24.244	24.425	1.00	26.27	A
	ATOM	1494	CB	CYS A 260	52.183	24.654	25.892	1.00	26.53	A
	ATOM	1495	SG	CYS A 260	50.846	25.739	26.469	1.00	32.91	A
	ATOM	1496	C	CYS A 260	50.786	23.435	24.224	1.00	22.83	A
5	ATOM	1497	O	CYS A 260	49.892	23.856	23.495	1.00	22.14	A
	ATOM	1498	N	LYS A 261	50.706	22.277	24.868	1.00	20.02	A
	ATOM	1499	CA	LYS A 261	49.526	21.434	24.744	1.00	20.65	A
	ATOM	1500	CB	LYS A 261	49.619	20.243	25.696	1.00	23.28	A
	ATOM	1501	CG	LYS A 261	50.716	19.253	25.347	1.00	27.44	A
10	ATOM	1502	CD	LYS A 261	50.732	18.117	26.350	1.00	29.98	A
	ATOM	1503	CE	LYS A 261	51.922	17.203	26.134	1.00	32.34	A
	ATOM	1504	NZ	LYS A 261	51.940	16.121	27.153	1.00	33.28	A
	ATOM	1505	C	LYS A 261	48.268	22.229	25.062	1.00	19.20	A
	ATOM	1506	O	LYS A 261	47.253	22.092	24.387	1.00	18.08	A
15	ATOM	1507	N	SER A 262	48.358	23.068	26.089	1.00	16.92	A
	ATOM	1508	CA	SER A 262	47.235	23.883	26.534	1.00	18.13	A
	ATOM	1509	CB	SER A 262	47.644	24.698	27.770	1.00	18.27	A
	ATOM	1510	OG	SER A 262	46.517	25.258	28.421	1.00	22.53	A
	ATOM	1511	C	SER A 262	46.736	24.811	25.424	1.00	16.77	A
20	ATOM	1512	O	SER A 262	45.591	25.254	25.450	1.00	15.69	A
	ATOM	1513	N	SER A 263	47.595	25.118	24.456	1.00	16.44	A
	ATOM	1514	CA	SER A 263	47.175	25.970	23.347	1.00	16.89	A
	ATOM	1515	CB	SER A 263	48.340	26.228	22.382	1.00	18.49	A
	ATOM	1516	OG	SER A 263	49.402	26.909	23.031	1.00	22.10	A
25	ATOM	1517	C	SER A 263	46.040	25.257	22.612	1.00	17.79	A
	ATOM	1518	O	SER A 263	45.099	25.898	22.148	1.00	17.57	A
	ATOM	1519	N	ASP A 264	46.119	23.928	22.517	1.00	16.30	A
	ATOM	1520	CA	ASP A 264	45.069	23.166	21.836	1.00	16.72	A
	ATOM	1521	CB	ASP A 264	45.483	21.704	21.620	1.00	15.92	A
30	ATOM	1522	CG	ASP A 264	46.544	21.539	20.548	1.00	17.93	A
	ATOM	1523	OD1	ASP A 264	46.642	22.412	19.661	1.00	16.78	A
	ATOM	1524	OD2	ASP A 264	47.265	20.515	20.579	1.00	16.64	A
	ATOM	1525	C	ASP A 264	43.773	23.194	22.646	1.00	17.67	A
	ATOM	1526	O	ASP A 264	42.681	23.197	22.076	1.00	18.27	A
35	ATOM	1527	N	LEU A 265	43.898	23.205	23.974	1.00	15.49	A
	ATOM	1528	CA	LEU A 265	42.730	23.232	24.849	1.00	14.75	A
	ATOM	1529	CB	LEU A 265	43.147	23.038	26.313	1.00	11.38	A
	ATOM	1530	CG	LEU A 265	43.711	21.641	26.621	1.00	14.04	A
	ATOM	1531	CD1	LEU A 265	44.249	21.579	28.052	1.00	13.96	A
40	ATOM	1532	CD2	LEU A 265	42.619	20.603	26.416	1.00	11.62	A
	ATOM	1533	C	LEU A 265	41.999	24.557	24.675	1.00	15.13	A
	ATOM	1534	O	LEU A 265	40.777	24.620	24.785	1.00	16.75	A
	ATOM	1535	N	TRP A 266	42.746	25.622	24.405	1.00	16.08	A
	ATOM	1536	CA	TRP A 266	42.118	26.918	24.184	1.00	16.96	A
45	ATOM	1537	CB	TRP A 266	43.176	28.015	24.023	1.00	17.28	A
	ATOM	1538	CG	TRP A 266	42.618	29.326	23.521	1.00	20.54	A
	ATOM	1539	CD2	TRP A 266	42.313	30.490	24.301	1.00	20.07	A
	ATOM	1540	CE2	TRP A 266	41.782	31.459	23.417	1.00	20.46	A
	ATOM	1541	CE3	TRP A 266	42.435	30.810	25.660	1.00	20.68	A
50	ATOM	1542	CD1	TRP A 266	42.270	29.631	22.231	1.00	19.53	A
	ATOM	1543	NE1	TRP A 266	41.769	30.908	22.163	1.00	19.61	A
	ATOM	1544	CZ2	TRP A 266	41.372	32.727	23.850	1.00	20.90	A
	ATOM	1545	CZ3	TRP A 266	42.026	32.073	26.091	1.00	19.45	A
	ATOM	1546	CH2	TRP A 266	41.501	33.015	25.185	1.00	20.71	A
55	ATOM	1547	C	TRP A 266	41.284	26.795	22.913	1.00	17.22	A
	ATOM	1548	O	TRP A 266	40.139	27.240	22.863	1.00	18.03	A
	ATOM	1549	N	ALA A 267	41.863	26.181	21.886	1.00	17.50	A
	ATOM	1550	CA	ALA A 267	41.155	25.990	20.626	1.00	16.16	A
	ATOM	1551	CB	ALA A 267	42.050	25.290	19.621	1.00	14.28	A

	ATOM	1552	C	ALA	A	267	39.901	25.159	20.891	1.00	16.28	A
	ATOM	1553	O	ALA	A	267	38.835	25.436	20.346	1.00	16.46	A
	ATOM	1554	N	LEU	A	268	40.031	24.144	21.739	1.00	16.57	A
	ATOM	1555	CA	LEU	A	268	38.890	23.299	22.084	1.00	17.03	A
5	ATOM	1556	CB	LEU	A	268	39.292	22.260	23.139	1.00	15.35	A
	ATOM	1557	CG	LEU	A	268	38.158	21.429	23.754	1.00	19.00	A
	ATOM	1558	CD1	LEU	A	268	37.505	20.578	22.678	1.00	16.17	A
	ATOM	1559	CD2	LEU	A	268	38.718	20.537	24.881	1.00	17.49	A
	ATOM	1560	C	LEU	A	268	37.766	24.179	22.628	1.00	15.72	A
10	ATOM	1561	O	LEU	A	268	36.603	24.031	22.247	1.00	15.28	A
	ATOM	1562	N	GLY	A	269	38.119	25.099	23.520	1.00	14.34	A
	ATOM	1563	CA	GLY	A	269	37.124	25.989	24.092	1.00	13.39	A
	ATOM	1564	C	GLY	A	269	36.406	26.808	23.031	1.00	14.94	A
	ATOM	1565	O	GLY	A	269	35.193	27.014	23.114	1.00	14.76	A
15	ATOM	1566	N	CYS	A	270	37.146	27.279	22.030	1.00	13.86	A
	ATOM	1567	CA	CYS	A	270	36.539	28.061	20.958	1.00	16.80	A
	ATOM	1568	CB	CYS	A	270	37.611	28.634	20.023	1.00	15.97	A
	ATOM	1569	SG	CYS	A	270	38.751	29.810	20.780	1.00	20.48	A
	ATOM	1570	C	CYS	A	270	35.598	27.175	20.140	1.00	17.50	A
20	ATOM	1571	O	CYS	A	270	34.516	27.604	19.741	1.00	18.38	A
	ATOM	1572	N	ILE	A	271	36.022	25.939	19.887	1.00	16.99	A
	ATOM	1573	CA	ILE	A	271	35.221	25.004	19.104	1.00	16.66	A
	ATOM	1574	CB	ILE	A	271	36.038	23.741	18.778	1.00	16.53	A
	ATOM	1575	CG2	ILE	A	271	35.155	22.694	18.102	1.00	16.34	A
25	ATOM	1576	CG1	ILE	A	271	37.222	24.129	17.882	1.00	15.59	A
	ATOM	1577	CD1	ILE	A	271	38.239	23.018	17.690	1.00	14.88	A
	ATOM	1578	C	ILE	A	271	33.920	24.626	19.809	1.00	16.74	A
	ATOM	1579	O	ILE	A	271	32.865	24.576	19.179	1.00	17.12	A
	ATOM	1580	N	ILE	A	272	33.990	24.357	21.111	1.00	16.13	A
30	ATOM	1581	CA	ILE	A	272	32.785	24.021	21.862	1.00	18.30	A
	ATOM	1582	CB	ILE	A	272	33.097	23.747	23.346	1.00	17.77	A
	ATOM	1583	CG2	ILE	A	272	31.796	23.666	24.152	1.00	17.96	A
	ATOM	1584	CG1	ILE	A	272	33.877	22.437	23.481	1.00	19.55	A
	ATOM	1585	CD1	ILE	A	272	34.446	22.217	24.886	1.00	18.64	A
35	ATOM	1586	C	ILE	A	272	31.824	25.207	21.776	1.00	19.51	A
	ATOM	1587	O	ILE	A	272	30.624	25.037	21.554	1.00	20.44	A
	ATOM	1588	N	TYR	A	273	32.362	26.409	21.947	1.00	18.52	A
	ATOM	1589	CA	TYR	A	273	31.553	27.615	21.881	1.00	20.48	A
	ATOM	1590	CB	TYR	A	273	32.418	28.847	22.162	1.00	18.98	A
40	ATOM	1591	CG	TYR	A	273	31.663	30.161	22.125	1.00	20.26	A
	ATOM	1592	CD1	TYR	A	273	31.229	30.709	20.916	1.00	20.67	A
	ATOM	1593	CE1	TYR	A	273	30.536	31.917	20.880	1.00	20.98	A
	ATOM	1594	CD2	TYR	A	273	31.383	30.857	23.302	1.00	19.82	A
	ATOM	1595	CE2	TYR	A	273	30.691	32.062	23.280	1.00	20.62	A
45	ATOM	1596	CZ	TYR	A	273	30.271	32.587	22.067	1.00	21.15	A
	ATOM	1597	OH	TYR	A	273	29.588	33.776	22.049	1.00	21.86	A
	ATOM	1598	C	TYR	A	273	30.902	27.730	20.507	1.00	21.54	A
	ATOM	1599	O	TYR	A	273	29.719	28.049	20.401	1.00	22.80	A
	ATOM	1600	N	GLN	A	274	31.676	27.454	19.461	1.00	21.05	A
50	ATOM	1601	CA	GLN	A	274	31.176	27.538	18.095	1.00	21.48	A
	ATOM	1602	CB	GLN	A	274	32.323	27.341	17.097	1.00	21.41	A
	ATOM	1603	CG	GLN	A	274	31.934	27.596	15.645	1.00	23.15	A
	ATOM	1604	CD	GLN	A	274	33.131	27.588	14.706	1.00	24.80	A
	ATOM	1605	OE1	GLN	A	274	34.276	27.446	15.139	1.00	22.51	A
55	ATOM	1606	NE2	GLN	A	274	32.870	27.750	13.413	1.00	22.96	A
	ATOM	1607	C	GLN	A	274	30.076	26.517	17.828	1.00	21.51	A
	ATOM	1608	O	GLN	A	274	29.123	26.806	17.108	1.00	20.50	A
	ATOM	1609	N	LEU	A	275	30.207	25.324	18.403	1.00	21.44	A
	ATOM	1610	CA	LEU	A	275	29.196	24.282	18.208	1.00	20.95	A

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        ATOM   1611   CB    LEU A 275      29.645  22.958  18.846  1.00 19.11      A
        ATOM   1612   CG    LEU A 275      30.775  22.182  18.159  1.00 21.43      A
        ATOM   1613   CD1   LEU A 275      31.118  20.936  18.963  1.00 17.64      A
        ATOM   1614   CD2   LEU A 275      30.342  21.795  16.754  1.00 20.34      A
    5   ATOM   1615   C     LEU A 275      27.860  24.697  18.815  1.00 21.32      A
        ATOM   1616   O     LEU A 275      26.802  24.461  18.229  1.00 19.75      A
        ATOM   1617   N     VAL A 276      27.921  25.322  19.987  1.00 19.10      A
        ATOM   1618   CA    VAL A 276      26.724  25.750  20.702  1.00 22.47      A
        ATOM   1619   CB    VAL A 276      27.011  25.882  22.217  1.00 20.87      A
   10   ATOM   1620   CG1   VAL A 276      25.742  26.291  22.957  1.00 19.68      A
        ATOM   1621   CG2   VAL A 276      27.550  24.558  22.766  1.00 19.43      A
        ATOM   1622   C     VAL A 276      26.127  27.075  20.211  1.00 23.89      A
        ATOM   1623   O     VAL A 276      24.910  27.199  20.070  1.00 24.90      A
        ATOM   1624   N     ALA A 277      26.983  28.062  19.965  1.00 24.56      A
   15   ATOM   1625   CA    ALA A 277      26.533  29.374  19.518  1.00 24.72      A
        ATOM   1626   CB    ALA A 277      27.504  30.444  19.999  1.00 24.36      A
        ATOM   1627   C     ALA A 277      26.378  29.458  18.005  1.00 25.76      A
        ATOM   1628   O     ALA A 277      25.577  30.242  17.502  1.00 26.39      A
        ATOM   1629   N     GLY A 278      27.142  28.651  17.280  1.00 25.13      A
   20   ATOM   1630   CA    GLY A 278      27.062  28.673  15.834  1.00 25.58      A
        ATOM   1631   C     GLY A 278      28.163  29.524  15.231  1.00 26.50      A
        ATOM   1632   O     GLY A 278      28.374  29.510  14.015  1.00 28.17      A
        ATOM   1633   N     LEU A 279      28.866  30.262  16.086  1.00 24.44      A
        ATOM   1634   CA    LEU A 279      29.962  31.130  15.656  1.00 25.21      A
   25   ATOM   1635   CB    LEU A 279      29.468  32.575  15.500  1.00 25.78      A
        ATOM   1636   CG    LEU A 279      28.364  32.899  14.490  1.00 28.17      A
        ATOM   1637   CD1   LEU A 279      27.922  34.344  14.684  1.00 26.60      A
        ATOM   1638   CD2   LEU A 279      28.862  32.670  13.071  1.00 26.52      A
        ATOM   1639   C     LEU A 279      31.093  31.116  16.687  1.00 23.47      A
   30   ATOM   1640   O     LEU A 279      30.848  30.994  17.882  1.00 24.44      A
        ATOM   1641   N     PRO A 280      32.349  31.239  16.236  1.00 23.35      A
        ATOM   1642   CD    PRO A 280      32.831  31.404  14.855  1.00 22.26      A
        ATOM   1643   CA    PRO A 280      33.464  31.239  17.189  1.00 23.81      A
        ATOM   1644   CB    PRO A 280      34.692  31.293  16.282  1.00 23.24      A
   35   ATOM   1645   CG    PRO A 280      34.189  32.020  15.073  1.00 24.89      A
        ATOM   1646   C     PRO A 280      33.353  32.444  18.137  1.00 22.69      A
        ATOM   1647   O     PRO A 280      32.750  33.457  17.788  1.00 22.11      A
        ATOM   1648   N     PRO A 281      33.939  32.344  19.345  1.00 23.06      A
        ATOM   1649   CD    PRO A 281      34.810  31.223  19.734  1.00 21.37      A
   40   ATOM   1650   CA    PRO A 281      33.935  33.375  20.395  1.00 23.67      A
        ATOM   1651   CB    PRO A 281      34.781  32.751  21.509  1.00 24.89      A
        ATOM   1652   CG    PRO A 281      34.749  31.287  21.219  1.00 25.24      A
        ATOM   1653   C     PRO A 281      34.481  34.752  20.017  1.00 23.75      A
        ATOM   1654   O     PRO A 281      33.869  35.781  20.317  1.00 21.02      A
   45   ATOM   1655   N     PHE A 282      35.644  34.763  19.379  1.00 22.17      A
        ATOM   1656   CA    PHE A 282      36.293  36.007  18.998  1.00 23.16      A
        ATOM   1657   CB    PHE A 282      37.765  35.943  19.406  1.00 21.01      A
        ATOM   1658   CG    PHE A 282      37.975  35.482  20.822  1.00 22.66      A
        ATOM   1659   CD1   PHE A 282      37.806  36.361  21.888  1.00 20.06      A
   50   ATOM   1660   CD2   PHE A 282      38.291  34.151  21.093  1.00 20.72      A
        ATOM   1661   CE1   PHE A 282      37.947  35.921  23.206  1.00 22.66      A
        ATOM   1662   CE2   PHE A 282      38.433  33.702  22.405  1.00 20.97      A
        ATOM   1663   CZ    PHE A 282      38.261  34.590  23.466  1.00 19.58      A
        ATOM   1664   C     PHE A 282      36.169  36.263  17.503  1.00 24.39      A
   55   ATOM   1665   O     PHE A 282      36.802  35.585  16.694  1.00 25.80      A
        ATOM   1666   N     ARG A 283      35.355  37.248  17.142  1.00 24.99      A
        ATOM   1667   CA    ARG A 283      35.141  37.594  15.741  1.00 26.33      A
        ATOM   1668   CB    ARG A 283      33.721  37.209  15.316  1.00 28.91      A
        ATOM   1669   CG    ARG A 283      33.293  35.808  15.724  1.00 30.27      A
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	ATOM	1670	CD	ARG A 283	31.904	35.493	15.188	1.00	33.36	A
	ATOM	1671	NE	ARG A 283	30.890	36.392	15.733	1.00	32.76	A
	ATOM	1672	CZ	ARG A 283	30.372	36.287	16.952	1.00	34.79	A
	ATOM	1673	NH1	ARG A 283	30.767	35.317	17.768	1.00	35.77	A
5	ATOM	1674	NH2	ARG A 283	29.458	37.156	17.359	1.00	36.12	A
	ATOM	1675	C	ARG A 283	35.328	39.096	15.544	1.00	26.47	A
	ATOM	1676	O	ARG A 283	35.029	39.888	16.438	1.00	26.28	A
	ATOM	1677	N	ALA A 284	35.818	39.486	14.373	1.00	26.70	A
	ATOM	1678	CA	ALA A 284	36.033	40.899	14.079	1.00	27.84	A
10	ATOM	1679	CB	ALA A 284	37.188	41.442	14.914	1.00	26.24	A
	ATOM	1680	C	ALA A 284	36.327	41.077	12.602	1.00	28.35	A
	ATOM	1681	O	ALA A 284	36.560	40.101	11.891	1.00	29.91	A
	ATOM	1682	N	GLY A 285	36.332	42.329	12.153	1.00	29.29	A
	ATOM	1683	CA	GLY A 285	36.577	42.631	10.753	1.00	29.52	A
15	ATOM	1684	C	GLY A 285	37.893	42.156	10.168	1.00	30.12	A
	ATOM	1685	O	GLY A 285	37.974	41.862	8.976	1.00	30.60	A
	ATOM	1686	N	ASN A 286	38.939	42.097	10.983	1.00	28.49	A
	ATOM	1687	CA	ASN A 286	40.231	41.644	10.489	1.00	26.71	A
	ATOM	1688	CB	ASN A 286	41.050	42.825	9.945	1.00	26.11	A
20	ATOM	1689	CG	ASN A 286	41.310	43.900	10.990	1.00	27.83	A
	ATOM	1690	OD1	ASN A 286	41.877	43.631	12.049	1.00	27.84	A
	ATOM	1691	ND2	ASN A 286	40.908	45.131	10.685	1.00	25.95	A
	ATOM	1692	C	ASN A 286	40.997	40.924	11.584	1.00	26.03	A
	ATOM	1693	O	ASN A 286	40.540	40.851	12.723	1.00	25.66	A
25	ATOM	1694	N	GLU A 287	42.162	40.391	11.239	1.00	24.81	A
	ATOM	1695	CA	GLU A 287	42.965	39.662	12.206	1.00	27.59	A
	ATOM	1696	CB	GLU A 287	44.145	38.985	11.510	1.00	30.17	A
	ATOM	1697	CG	GLU A 287	43.776	37.632	10.931	1.00	38.21	A
	ATOM	1698	CD	GLU A 287	44.900	36.998	10.140	1.00	41.86	A
30	ATOM	1699	OE1	GLU A 287	46.061	37.036	10.608	1.00	43.08	A
	ATOM	1700	OE2	GLU A 287	44.612	36.449	9.052	1.00	45.22	A
	ATOM	1701	C	GLU A 287	43.459	40.485	13.383	1.00	25.05	A
	ATOM	1702	O	GLU A 287	43.382	40.030	14.521	1.00	26.41	A
	ATOM	1703	N	TYR A 288	43.966	41.685	13.122	1.00	23.04	A
35	ATOM	1704	CA	TYR A 288	44.460	42.528	14.205	1.00	22.34	A
	ATOM	1705	CB	TYR A 288	44.867	43.913	13.691	1.00	21.07	A
	ATOM	1706	CG	TYR A 288	45.275	44.858	14.805	1.00	21.07	A
	ATOM	1707	CD1	TYR A 288	46.533	44.762	15.405	1.00	21.23	A
	ATOM	1708	CE1	TYR A 288	46.891	45.588	16.475	1.00	20.43	A
40	ATOM	1709	CD2	TYR A 288	44.380	45.809	15.302	1.00	22.32	A
	ATOM	1710	CE2	TYR A 288	44.725	46.637	16.373	1.00	23.28	A
	ATOM	1711	CZ	TYR A 288	45.981	46.518	16.953	1.00	22.96	A
	ATOM	1712	OH	TYR A 288	46.316	47.313	18.024	1.00	23.18	A
	ATOM	1713	C	TYR A 288	43.402	42.698	15.288	1.00	21.38	A
45	ATOM	1714	O	TYR A 288	43.710	42.616	16.473	1.00	22.09	A
	ATOM	1715	N	LEU A 289	42.159	42.939	14.874	1.00	21.88	A
	ATOM	1716	CA	LEU A 289	41.055	43.130	15.811	1.00	21.98	A
	ATOM	1717	CB	LEU A 289	39.821	43.673	15.078	1.00	22.90	A
	ATOM	1718	CG	LEU A 289	39.896	45.130	14.601	1.00	26.52	A
50	ATOM	1719	CD1	LEU A 289	38.706	45.436	13.696	1.00	26.55	A
	ATOM	1720	CD2	LEU A 289	39.914	46.071	15.807	1.00	23.13	A
	ATOM	1721	C	LEU A 289	40.686	41.849	16.560	1.00	21.24	A
	ATOM	1722	O	LEU A 289	40.256	41.897	17.715	1.00	20.72	A
	ATOM	1723	N	ILE A 290	40.843	40.708	15.900	1.00	19.62	A
55	ATOM	1724	CA	ILE A 290	40.538	39.433	16.533	1.00	18.54	A
	ATOM	1725	CB	ILE A 290	40.560	38.281	15.509	1.00	18.52	A
	ATOM	1726	CG2	ILE A 290	40.503	36.934	16.234	1.00	17.63	A
	ATOM	1727	CG1	ILE A 290	39.378	38.429	14.545	1.00	18.88	A
	ATOM	1728	CD1	ILE A 290	39.421	37.483	13.357	1.00	19.81	A

	ATOM	1729	C	ILE A 290	41.578	39.167	17.618	1.00	19.09	A
	ATOM	1730	O	ILE A 290	41.236	38.788	18.737	1.00	18.20	A
	ATOM	1731	N	PHE A 291	42.849	39.376	17.286	1.00	18.76	A
	ATOM	1732	CA	PHE A 291	43.925	39.156	18.247	1.00	20.75	A
5	ATOM	1733	CB	PHE A 291	45.286	39.434	17.606	1.00	20.71	A
	ATOM	1734	CG	PHE A 291	45.644	38.480	16.503	1.00	22.92	A
	ATOM	1735	CD1	PHE A 291	45.065	37.214	16.443	1.00	22.98	A
	ATOM	1736	CD2	PHE A 291	46.588	38.830	15.543	1.00	22.91	A
	ATOM	1737	CE1	PHE A 291	45.423	36.310	15.440	1.00	24.51	A
10	ATOM	1738	CE2	PHE A 291	46.954	37.931	14.535	1.00	25.54	A
	ATOM	1739	CZ	PHE A 291	46.370	36.670	14.485	1.00	23.29	A
	ATOM	1740	C	PHE A 291	43.739	40.061	19.451	1.00	21.72	A
	ATOM	1741	O	PHE A 291	43.992	39.671	20.593	1.00	22.32	A
	ATOM	1742	N	GLN A 292	43.284	41.275	19.178	1.00	23.27	A
15	ATOM	1743	CA	GLN A 292	43.055	42.264	20.216	1.00	24.01	A
	ATOM	1744	CB	GLN A 292	42.574	43.559	19.562	1.00	25.77	A
	ATOM	1745	CG	GLN A 292	42.577	44.773	20.447	1.00	28.45	A
	ATOM	1746	CD	GLN A 292	42.469	46.057	19.638	1.00	29.83	A
	ATOM	1747	OE1	GLN A 292	41.520	46.244	18.872	1.00	27.16	A
20	ATOM	1748	NE2	GLN A 292	43.449	46.944	19.799	1.00	27.61	A
	ATOM	1749	C	GLN A 292	42.018	41.733	21.204	1.00	22.97	A
	ATOM	1750	O	GLN A 292	42.200	41.832	22.415	1.00	21.64	A
	ATOM	1751	N	LYS A 293	40.937	41.154	20.687	1.00	21.82	A
	ATOM	1752	CA	LYS A 293	39.895	40.612	21.558	1.00	22.18	A
25	ATOM	1753	CB	LYS A 293	38.664	40.223	20.740	1.00	22.69	A
	ATOM	1754	CG	LYS A 293	37.919	41.407	20.153	1.00	25.78	A
	ATOM	1755	CD	LYS A 293	36.651	40.961	19.429	1.00	27.88	A
	ATOM	1756	CE	LYS A 293	35.857	42.161	18.926	1.00	30.85	A
	ATOM	1757	NZ	LYS A 293	34.612	41.750	18.214	1.00	32.98	A
30	ATOM	1758	C	LYS A 293	40.398	39.398	22.343	1.00	21.20	A
	ATOM	1759	O	LYS A 293	40.041	39.204	23.509	1.00	22.01	A
	ATOM	1760	N	ILE A 294	41.226	38.583	21.702	1.00	19.91	A
	ATOM	1761	CA	ILE A 294	41.774	37.394	22.347	1.00	20.28	A
	ATOM	1762	CB	ILE A 294	42.631	36.575	21.349	1.00	18.98	A
35	ATOM	1763	CG2	ILE A 294	43.481	35.550	22.098	1.00	17.70	A
	ATOM	1764	CG1	ILE A 294	41.716	35.897	20.318	1.00	17.93	A
	ATOM	1765	CD1	ILE A 294	42.467	35.237	19.178	1.00	16.21	A
	ATOM	1766	C	ILE A 294	42.618	37.727	23.587	1.00	21.94	A
	ATOM	1767	O	ILE A 294	42.366	37.199	24.673	1.00	20.86	A
40	ATOM	1768	N	ILE A 295	43.610	38.600	23.439	1.00	21.88	A
	ATOM	1769	CA	ILE A 295	44.461	38.934	24.582	1.00	24.25	A
	ATOM	1770	CB	ILE A 295	45.668	39.805	24.175	1.00	23.93	A
	ATOM	1771	CG2	ILE A 295	46.514	39.066	23.140	1.00	24.61	A
	ATOM	1772	CG1	ILE A 295	45.189	41.151	23.637	1.00	24.58	A
45	ATOM	1773	CD1	ILE A 295	46.317	42.149	23.433	1.00	26.69	A
	ATOM	1774	C	ILE A 295	43.720	39.636	25.717	1.00	24.80	A
	ATOM	1775	O	ILE A 295	44.214	39.687	26.842	1.00	24.76	A
	ATOM	1776	N	LYS A 296	42.539	40.173	25.425	1.00	25.33	A
	ATOM	1777	CA	LYS A 296	41.743	40.853	26.444	1.00	26.80	A
50	ATOM	1778	CB	LYS A 296	41.178	42.170	25.894	1.00	27.39	A
	ATOM	1779	CG	LYS A 296	42.240	43.141	25.413	1.00	31.79	A
	ATOM	1780	CD	LYS A 296	41.634	44.410	24.826	1.00	35.56	A
	ATOM	1781	CE	LYS A 296	41.009	45.283	25.900	1.00	39.29	A
	ATOM	1782	NZ	LYS A 296	40.564	46.603	25.357	1.00	41.72	A
55	ATOM	1783	C	LYS A 296	40.593	39.958	26.893	1.00	25.50	A
	ATOM	1784	O	LYS A 296	39.770	40.361	27.713	1.00	24.02	A
	ATOM	1785	N	LEU A 297	40.550	38.742	26.349	1.00	25.67	A
	ATOM	1786	CA	LEU A 297	39.500	37.777	26.666	1.00	25.16	A
	ATOM	1787	CB	LEU A 297	39.632	37.285	28.111	1.00	24.80	A

	ATOM	1788	CG	LEU A 297	38.766	36.068	28.460	1.00	26.43	A
	ATOM	1789	CD1	LEU A 297	39.238	34.852	27.646	1.00	26.70	A
	ATOM	1790	CD2	LEU A 297	38.856	35.777	29.951	1.00	24.84	A
	ATOM	1791	C	LEU A 297	38.151	38.459	26.467	1.00	25.11	A
5	ATOM	1792	O	LEU A 297	37.261	38.378	27.309	1.00	25.28	A
	ATOM	1793	N	GLU A 298	38.007	39.127	25.331	1.00	24.98	A
	ATOM	1794	CA	GLU A 298	36.786	39.847	25.023	1.00	25.31	A
	ATOM	1795	CB	GLU A 298	37.143	41.139	24.291	1.00	27.13	A
	ATOM	1796	CG	GLU A 298	35.991	42.092	24.108	1.00	31.28	A
10	ATOM	1797	CD	GLU A 298	36.419	43.362	23.410	1.00	34.40	A
	ATOM	1798	OE1	GLU A 298	37.348	44.027	23.918	1.00	35.90	A
	ATOM	1799	OE2	GLU A 298	35.832	43.693	22.359	1.00	36.16	A
	ATOM	1800	C	GLU A 298	35.766	39.057	24.207	1.00	23.79	A
	ATOM	1801	O	GLU A 298	35.832	39.017	22.979	1.00	24.35	A
15	ATOM	1802	N	TYR A 299	34.825	38.427	24.902	1.00	23.45	A
	ATOM	1803	CA	TYR A 299	33.760	37.663	24.265	1.00	23.98	A
	ATOM	1804	CB	TYR A 299	34.264	36.304	23.755	1.00	20.13	A
	ATOM	1805	CG	TYR A 299	34.348	35.233	24.828	1.00	21.17	A
	ATOM	1806	CD1	TYR A 299	35.336	35.279	25.810	1.00	19.32	A
20	ATOM	1807	CE1	TYR A 299	35.389	34.332	26.826	1.00	19.30	A
	ATOM	1808	CD2	TYR A 299	33.410	34.201	24.888	1.00	18.96	A
	ATOM	1809	CE2	TYR A 299	33.456	33.243	25.907	1.00	19.41	A
	ATOM	1810	CZ	TYR A 299	34.449	33.321	26.870	1.00	18.79	A
	ATOM	1811	OH	TYR A 299	34.511	32.401	27.881	1.00	18.77	A
25	ATOM	1812	C	TYR A 299	32.699	37.437	25.331	1.00	25.20	A
	ATOM	1813	O	TYR A 299	32.942	37.681	26.506	1.00	26.46	A
	ATOM	1814	N	ASP A 300	31.522	36.981	24.927	1.00	26.94	A
	ATOM	1815	CA	ASP A 300	30.467	36.710	25.891	1.00	30.60	A
	ATOM	1816	CB	ASP A 300	29.665	37.981	26.179	1.00	35.86	A
30	ATOM	1817	CG	ASP A 300	29.228	38.687	24.923	1.00	42.04	A
	ATOM	1818	OD1	ASP A 300	28.450	38.088	24.149	1.00	45.98	A
	ATOM	1819	OD2	ASP A 300	29.666	39.840	24.707	1.00	45.69	A
	ATOM	1820	C	ASP A 300	29.564	35.608	25.363	1.00	29.26	A
	ATOM	1821	O	ASP A 300	29.590	35.299	24.172	1.00	28.64	A
35	ATOM	1822	N	PHE A 301	28.778	35.011	26.253	1.00	28.96	A
	ATOM	1823	CA	PHE A 301	27.884	33.924	25.871	1.00	30.48	A
	ATOM	1824	CB	PHE A 301	27.818	32.854	26.968	1.00	29.17	A
	ATOM	1825	CG	PHE A 301	29.147	32.279	27.356	1.00	29.29	A
	ATOM	1826	CD1	PHE A 301	29.978	32.949	28.245	1.00	27.31	A
40	ATOM	1827	CD2	PHE A 301	29.560	31.050	26.845	1.00	27.89	A
	ATOM	1828	CE1	PHE A 301	31.205	32.403	28.625	1.00	28.83	A
	ATOM	1829	CE2	PHE A 301	30.781	30.498	27.217	1.00	28.05	A
	ATOM	1830	CZ	PHE A 301	31.605	31.175	28.110	1.00	28.27	A
	ATOM	1831	C	PHE A 301	26.459	34.384	25.619	1.00	32.20	A
45	ATOM	1832	O	PHE A 301	25.946	35.261	26.317	1.00	32.36	A
	ATOM	1833	N	PRO A 302	25.798	33.804	24.607	1.00	33.29	A
	ATOM	1834	CD	PRO A 302	26.313	32.943	23.529	1.00	34.04	A
	ATOM	1835	CA	PRO A 302	24.415	34.199	24.341	1.00	35.24	A
	ATOM	1836	CB	PRO A 302	24.144	33.608	22.959	1.00	34.01	A
50	ATOM	1837	CG	PRO A 302	25.041	32.413	22.921	1.00	35.48	A
	ATOM	1838	C	PRO A 302	23.567	33.561	25.444	1.00	37.39	A
	ATOM	1839	O	PRO A 302	23.935	32.518	25.986	1.00	38.49	A
	ATOM	1840	N	ALA A 303	22.447	34.188	25.783	1.00	39.36	A
	ATOM	1841	CA	ALA A 303	21.572	33.692	26.843	1.00	40.65	A
55	ATOM	1842	CB	ALA A 303	20.280	34.506	26.862	1.00	41.66	A
	ATOM	1843	C	ALA A 303	21.238	32.197	26.814	1.00	41.25	A
	ATOM	1844	O	ALA A 303	21.253	31.537	27.854	1.00	43.16	A
	ATOM	1845	N	ALA A 304	20.945	31.665	25.631	1.00	41.04	A
	ATOM	1846	CA	ALA A 304	20.569	30.258	25.480	1.00	40.66	A

	ATOM	1847	CB	ALA A 304	20.121	30.004	24.040	1.00	41.36	A
	ATOM	1848	C	ALA A 304	21.628	29.223	25.876	1.00	39.61	A
	ATOM	1849	O	ALA A 304	21.298	28.156	26.395	1.00	40.61	A
	ATOM	1850	N	PHE A 305	22.891	29.543	25.617	1.00	36.21	A
5	ATOM	1851	CA	PHE A 305	24.022	28.662	25.909	1.00	32.08	A
	ATOM	1852	CB	PHE A 305	25.259	29.519	26.187	1.00	29.46	A
	ATOM	1853	CG	PHE A 305	26.536	28.917	25.690	1.00	28.15	A
	ATOM	1854	CD1	PHE A 305	27.146	27.875	26.377	1.00	26.20	A
	ATOM	1855	CD2	PHE A 305	27.127	29.386	24.521	1.00	27.05	A
10	ATOM	1856	CE1	PHE A 305	28.330	27.308	25.908	1.00	26.92	A
	ATOM	1857	CE2	PHE A 305	28.312	28.826	24.042	1.00	26.62	A
	ATOM	1858	CZ	PHE A 305	28.914	27.786	24.737	1.00	26.61	A
	ATOM	1859	C	PHE A 305	23.811	27.664	27.057	1.00	30.09	A
	ATOM	1860	O	PHE A 305	23.518	28.051	28.187	1.00	31.51	A
15	ATOM	1861	N	PHE A 306	23.964	26.378	26.758	1.00	27.01	A
	ATOM	1862	CA	PHE A 306	23.801	25.334	27.769	1.00	26.30	A
	ATOM	1863	CB	PHE A 306	24.157	23.970	27.170	1.00	25.03	A
	ATOM	1864	CG	PHE A 306	23.548	23.725	25.815	1.00	27.24	A
	ATOM	1865	CD1	PHE A 306	22.170	23.831	25.622	1.00	28.40	A
20	ATOM	1866	CD2	PHE A 306	24.350	23.386	24.728	1.00	27.84	A
	ATOM	1867	CE1	PHE A 306	21.601	23.603	24.365	1.00	28.05	A
	ATOM	1868	CE2	PHE A 306	23.792	23.155	23.465	1.00	28.31	A
	ATOM	1869	CZ	PHE A 306	22.415	23.263	23.283	1.00	28.00	A
	ATOM	1870	C	PHE A 306	24.711	25.652	28.961	1.00	26.23	A
25	ATOM	1871	O	PHE A 306	25.927	25.775	28.811	1.00	25.59	A
	ATOM	1872	N	PRO A 307	24.125	25.796	30.163	1.00	26.67	A
	ATOM	1873	CD	PRO A 307	22.685	25.625	30.430	1.00	27.95	A
	ATOM	1874	CA	PRO A 307	24.842	26.110	31.405	1.00	26.59	A
	ATOM	1875	CB	PRO A 307	23.795	25.832	32.481	1.00	26.14	A
30	ATOM	1876	CG	PRO A 307	22.531	26.250	31.803	1.00	27.86	A
	ATOM	1877	C	PRO A 307	26.145	25.355	31.659	1.00	25.58	A
	ATOM	1878	O	PRO A 307	27.189	25.964	31.900	1.00	22.65	A
	ATOM	1879	N	LYS A 308	26.085	24.031	31.620	1.00	24.46	A
	ATOM	1880	CA	LYS A 308	27.274	23.232	31.867	1.00	23.91	A
35	ATOM	1881	CB	LYS A 308	26.887	21.760	32.024	1.00	23.25	A
	ATOM	1882	CG	LYS A 308	26.062	21.532	33.285	1.00	28.49	A
	ATOM	1883	CD	LYS A 308	25.618	20.093	33.466	1.00	30.17	A
	ATOM	1884	CE	LYS A 308	24.760	19.973	34.722	1.00	33.12	A
	ATOM	1885	NZ	LYS A 308	24.122	18.636	34.860	1.00	34.13	A
40	ATOM	1886	C	LYS A 308	28.314	23.426	30.769	1.00	22.84	A
	ATOM	1887	O	LYS A 308	29.514	23.411	31.042	1.00	22.46	A
	ATOM	1888	N	ALA A 309	27.861	23.621	29.534	1.00	21.59	A
	ATOM	1889	CA	ALA A 309	28.792	23.848	28.432	1.00	20.02	A
	ATOM	1890	CB	ALA A 309	28.056	23.856	27.106	1.00	18.80	A
45	ATOM	1891	C	ALA A 309	29.481	25.191	28.662	1.00	21.41	A
	ATOM	1892	O	ALA A 309	30.680	25.335	28.427	1.00	21.39	A
	ATOM	1893	N	ARG A 310	28.717	26.179	29.121	1.00	21.39	A
	ATOM	1894	CA	ARG A 310	29.290	27.494	29.388	1.00	22.02	A
	ATOM	1895	CB	ARG A 310	28.213	28.479	29.854	1.00	22.39	A
50	ATOM	1896	CG	ARG A 310	28.806	29.756	30.436	1.00	25.30	A
	ATOM	1897	CD	ARG A 310	27.780	30.852	30.664	1.00	28.33	A
	ATOM	1898	NE	ARG A 310	28.420	32.039	31.230	1.00	30.18	A
	ATOM	1899	CZ	ARG A 310	27.901	33.263	31.203	1.00	32.07	A
	ATOM	1900	NH1	ARG A 310	26.719	33.477	30.634	1.00	31.19	A
55	ATOM	1901	NH2	ARG A 310	28.567	34.277	31.742	1.00	30.49	A
	ATOM	1902	C	ARG A 310	30.376	27.388	30.458	1.00	21.65	A
	ATOM	1903	O	ARG A 310	31.464	27.949	30.311	1.00	20.36	A
	ATOM	1904	N	ASP A 311	30.074	26.677	31.541	1.00	19.57	A
	ATOM	1905	CA	ASP A 311	31.043	26.512	32.615	1.00	20.18	A

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      ATOM   1906   CB  ASP A 311      30.460  25.649  33.739  1.00 20.39      A
      ATOM   1907   CG  ASP A 311      31.439  25.446  34.881  1.00 23.35      A
      ATOM   1908   OD1 ASP A 311      32.158  24.428  34.885  1.00 24.91      A
      ATOM   1909   OD2 ASP A 311      31.500  26.312  35.776  1.00 26.96      A
  5   ATOM   1910   C   ASP A 311      32.322  25.877  32.073  1.00 19.73      A
      ATOM   1911   O   ASP A 311      33.422  26.289  32.439  1.00 19.30      A
      ATOM   1912   N   LEU A 312      32.179  24.891  31.188  1.00 16.32      A
      ATOM   1913   CA  LEU A 312      33.349  24.226  30.611  1.00 16.66      A
      ATOM   1914   CB  LEU A 312      32.927  23.035  29.744  1.00 16.12      A
 10   ATOM   1915   CG  LEU A 312      34.050  22.320  28.974  1.00 14.73      A
      ATOM   1916   CD1 LEU A 312      35.192  21.935  29.912  1.00 14.56      A
      ATOM   1917   CD2 LEU A 312      33.477  21.084  28.289  1.00 14.22      A
      ATOM   1918   C   LEU A 312      34.181  25.189  29.774  1.00 16.61      A
      ATOM   1919   O   LEU A 312      35.402  25.241  29.910  1.00 16.20      A
 15   ATOM   1920   N   VAL A 313      33.515  25.949  28.908  1.00 16.20      A
      ATOM   1921   CA  VAL A 313      34.207  26.907  28.058  1.00 15.37      A
      ATOM   1922   CB  VAL A 313      33.216  27.648  27.130  1.00 16.42      A
      ATOM   1923   CG1 VAL A 313      33.915  28.796  26.426  1.00 16.93      A
      ATOM   1924   CG2 VAL A 313      32.644  26.672  26.103  1.00 17.88      A
 20   ATOM   1925   C   VAL A 313      34.960  27.923  28.911  1.00 17.39      A
      ATOM   1926   O   VAL A 313      36.093  28.294  28.591  1.00 18.00      A
      ATOM   1927   N   GLU A 314      34.342  28.364  30.004  1.00 17.61      A
      ATOM   1928   CA  GLU A 314      34.986  29.331  30.885  1.00 20.43      A
      ATOM   1929   CB  GLU A 314      34.009  29.816  31.959  1.00 22.14      A
 25   ATOM   1930   CG  GLU A 314      32.800  30.550  31.396  1.00 26.52      A
      ATOM   1931   CD  GLU A 314      31.852  31.025  32.478  1.00 31.26      A
      ATOM   1932   OE1 GLU A 314      31.580  30.246  33.417  1.00 33.48      A
      ATOM   1933   OE2 GLU A 314      31.370  32.173  32.387  1.00 34.81      A
      ATOM   1934   C   GLU A 314      36.217  28.721  31.539  1.00 19.15      A
 30   ATOM   1935   O   GLU A 314      37.134  29.433  31.934  1.00 21.47      A
      ATOM   1936   N   LYS A 315      36.245  27.400  31.651  1.00 19.51      A
      ATOM   1937   CA  LYS A 315      37.394  26.749  32.258  1.00 19.17      A
      ATOM   1938   CB  LYS A 315      36.946  25.514  33.043  1.00 18.84      A
      ATOM   1939   CG  LYS A 315      36.280  25.885  34.368  1.00 19.62      A
 35   ATOM   1940   CD  LYS A 315      35.653  24.696  35.073  1.00 19.22      A
      ATOM   1941   CE  LYS A 315      35.070  25.095  36.427  1.00 21.00      A
      ATOM   1942   NZ  LYS A 315      36.119  25.552  37.381  1.00 19.53      A
      ATOM   1943   C   LYS A 315      38.452  26.393  31.218  1.00 18.96      A
      ATOM   1944   O   LYS A 315      39.511  25.873  31.561  1.00 19.85      A
 40   ATOM   1945   N   LEU A 316      38.164  26.691  29.950  1.00 17.08      A
      ATOM   1946   CA  LEU A 316      39.102  26.429  28.854  1.00 16.41      A
      ATOM   1947   CB  LEU A 316      38.414  25.636  27.738  1.00 13.81      A
      ATOM   1948   CG  LEU A 316      38.028  24.201  28.115  1.00 14.39      A
      ATOM   1949   CD1 LEU A 316      37.139  23.597  27.031  1.00 12.38      A
 45   ATOM   1950   CD2 LEU A 316      39.302  23.373  28.309  1.00 12.77      A
      ATOM   1951   C   LEU A 316      39.652  27.743  28.290  1.00 17.12      A
      ATOM   1952   O   LEU A 316      40.851  27.860  28.023  1.00 16.53      A
      ATOM   1953   N   LEU A 317      38.780  28.729  28.105  1.00 16.27      A
      ATOM   1954   CA  LEU A 317      39.228  30.022  27.596  1.00 17.52      A
 50   ATOM   1955   CB  LEU A 317      38.083  30.752  26.887  1.00 16.37      A
      ATOM   1956   CG  LEU A 317      37.448  29.973  25.727  1.00 18.81      A
      ATOM   1957   CD1 LEU A 317      36.415  30.851  25.018  1.00 16.47      A
      ATOM   1958   CD2 LEU A 317      38.528  29.526  24.741  1.00 17.87      A
      ATOM   1959   C   LEU A 317      39.745  30.841  28.774  1.00 18.27      A
 55   ATOM   1960   O   LEU A 317      39.078  31.753  29.273  1.00 18.58      A
      ATOM   1961   N   VAL A 318      40.937  30.475  29.229  1.00 18.02      A
      ATOM   1962   CA  VAL A 318      41.593  31.141  30.342  1.00 18.85      A
      ATOM   1963   CB  VAL A 318      41.846  30.153  31.500  1.00 19.91      A
      ATOM   1964   CG1 VAL A 318      42.590  30.848  32.634  1.00 20.01      A
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	ATOM	1965	CG2	VAL	A	318	40.520	29.584	31.990	1.00	19.44	A
	ATOM	1966	C	VAL	A	318	42.923	31.657	29.811	1.00	19.67	A
	ATOM	1967	O	VAL	A	318	43.690	30.902	29.208	1.00	18.26	A
	ATOM	1968	N	LEU	A	319	43.197	32.939	30.028	1.00	20.07	A
5	ATOM	1969	CA	LEU	A	319	44.436	33.533	29.538	1.00	20.98	A
	ATOM	1970	CB	LEU	A	319	44.521	35.002	29.968	1.00	21.64	A
	ATOM	1971	CG	LEU	A	319	43.418	35.908	29.408	1.00	24.38	A
	ATOM	1972	CD1	LEU	A	319	43.606	37.332	29.935	1.00	23.28	A
	ATOM	1973	CD2	LEU	A	319	43.453	35.887	27.875	1.00	24.33	A
10	ATOM	1974	C	LEU	A	319	45.680	32.774	29.994	1.00	20.38	A
	ATOM	1975	O	LEU	A	319	46.568	32.496	29.192	1.00	21.34	A
	ATOM	1976	N	ASP	A	320	45.742	32.440	31.280	1.00	20.22	A
	ATOM	1977	CA	ASP	A	320	46.879	31.707	31.833	1.00	20.90	A
	ATOM	1978	CB	ASP	A	320	46.842	31.760	33.365	1.00	20.76	A
15	ATOM	1979	CG	ASP	A	320	48.049	31.102	34.004	1.00	21.51	A
	ATOM	1980	OD1	ASP	A	320	48.669	30.226	33.367	1.00	23.46	A
	ATOM	1981	OD2	ASP	A	320	48.371	31.450	35.159	1.00	23.89	A
	ATOM	1982	C	ASP	A	320	46.814	30.247	31.367	1.00	20.06	A
	ATOM	1983	O	ASP	A	320	45.988	29.476	31.840	1.00	20.54	A
20	ATOM	1984	N	ALA	A	321	47.700	29.876	30.451	1.00	20.68	A
	ATOM	1985	CA	ALA	A	321	47.733	28.522	29.903	1.00	22.04	A
	ATOM	1986	CB	ALA	A	321	48.860	28.411	28.881	1.00	20.75	A
	ATOM	1987	C	ALA	A	321	47.858	27.400	30.940	1.00	21.62	A
	ATOM	1988	O	ALA	A	321	47.482	26.259	30.665	1.00	21.99	A
25	ATOM	1989	N	THR	A	322	48.372	27.715	32.127	1.00	20.89	A
	ATOM	1990	CA	THR	A	322	48.531	26.698	33.167	1.00	20.82	A
	ATOM	1991	CB	THR	A	322	49.670	27.051	34.146	1.00	19.47	A
	ATOM	1992	OG1	THR	A	322	49.341	28.253	34.848	1.00	20.19	A
	ATOM	1993	CG2	THR	A	322	50.981	27.249	33.394	1.00	21.59	A
30	ATOM	1994	C	THR	A	322	47.264	26.498	33.983	1.00	19.55	A
	ATOM	1995	O	THR	A	322	47.235	25.673	34.894	1.00	21.13	A
	ATOM	1996	N	LYS	A	323	46.216	27.248	33.661	1.00	19.33	A
	ATOM	1997	CA	LYS	A	323	44.962	27.122	34.392	1.00	21.20	A
	ATOM	1998	CB	LYS	A	323	44.580	28.460	35.030	1.00	23.75	A
35	ATOM	1999	CG	LYS	A	323	45.562	28.933	36.084	1.00	28.45	A
	ATOM	2000	CD	LYS	A	323	45.055	30.177	36.799	1.00	33.76	A
	ATOM	2001	CE	LYS	A	323	46.087	30.678	37.802	1.00	36.15	A
	ATOM	2002	NZ	LYS	A	323	46.532	29.569	38.693	1.00	37.34	A
	ATOM	2003	C	LYS	A	323	43.806	26.614	33.539	1.00	20.68	A
40	ATOM	2004	O	LYS	A	323	42.649	26.757	33.915	1.00	20.42	A
	ATOM	2005	N	ARG	A	324	44.114	26.019	32.392	1.00	19.97	A
	ATOM	2006	CA	ARG	A	324	43.060	25.494	31.531	1.00	17.98	A
	ATOM	2007	CB	ARG	A	324	43.461	25.609	30.061	1.00	15.95	A
	ATOM	2008	CG	ARG	A	324	43.534	27.050	29.603	1.00	17.34	A
45	ATOM	2009	CD	ARG	A	324	43.996	27.194	28.172	1.00	19.80	A
	ATOM	2010	NE	ARG	A	324	44.438	28.565	27.944	1.00	16.93	A
	ATOM	2011	CZ	ARG	A	324	45.410	28.908	27.108	1.00	19.88	A
	ATOM	2012	NH1	ARG	A	324	46.045	27.978	26.398	1.00	14.58	A
	ATOM	2013	NH2	ARG	A	324	45.774	30.181	27.015	1.00	16.51	A
50	ATOM	2014	C	ARG	A	324	42.762	24.046	31.883	1.00	18.32	A
	ATOM	2015	O	ARG	A	324	43.673	23.222	32.006	1.00	18.20	A
	ATOM	2016	N	LEU	A	325	41.479	23.748	32.055	1.00	18.32	A
	ATOM	2017	CA	LEU	A	325	41.050	22.403	32.395	1.00	17.79	A
	ATOM	2018	CB	LEU	A	325	39.523	22.335	32.425	1.00	17.03	A
55	ATOM	2019	CG	LEU	A	325	38.896	21.125	33.116	1.00	15.91	A
	ATOM	2020	CD1	LEU	A	325	39.392	21.048	34.557	1.00	15.93	A
	ATOM	2021	CD2	LEU	A	325	37.375	21.255	33.084	1.00	16.56	A
	ATOM	2022	C	LEU	A	325	41.599	21.433	31.356	1.00	18.68	A
	ATOM	2023	O	LEU	A	325	41.347	21.586	30.157	1.00	18.28	A

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      ATOM   2024   N    GLY A 326        42.354  20.439  31.821  1.00 18.18         A
      ATOM   2025   CA   GLY A 326        42.931  19.462  30.915  1.00 16.36         A
      ATOM   2026   C    GLY A 326        44.443  19.558  30.807  1.00 19.15         A
      ATOM   2027   O    GLY A 326        45.093  18.592  30.404  1.00 19.52         A
   5  ATOM   2028   N    CYS A 327        45.016  20.708  31.161  1.00 18.16         A
      ATOM   2029   CA   CYS A 327        46.463  20.867  31.075  1.00 19.30         A
      ATOM   2030   CB   CYS A 327        46.856  22.350  31.058  1.00 20.22         A
      ATOM   2031   SG   CYS A 327        46.782  23.200  32.649  1.00 21.97         A
      ATOM   2032   C    CYS A 327        47.169  20.157  32.228  1.00 20.22         A
  10  ATOM   2033   O    CYS A 327        46.561  19.828  33.246  1.00 17.92         A
      ATOM   2034   N    GLU A 328        48.463  19.933  32.053  1.00 20.51         A
      ATOM   2035   CA   GLU A 328        49.274  19.244  33.042  1.00 23.34         A
      ATOM   2036   CB   GLU A 328        50.710  19.139  32.507  1.00 28.68         A
      ATOM   2037   CG   GLU A 328        50.754  18.367  31.175  1.00 38.24         A
  15  ATOM   2038   CD   GLU A 328        52.067  18.500  30.414  1.00 43.23         A
      ATOM   2039   OE1  GLU A 328        52.535  19.643  30.218  1.00 46.22         A
      ATOM   2040   OE2  GLU A 328        52.618  17.459  29.991  1.00 44.90         A
      ATOM   2041   C    GLU A 328        49.234  19.876  34.435  1.00 22.11         A
      ATOM   2042   O    GLU A 328        49.147  19.161  35.437  1.00 20.27         A
  20  ATOM   2043   N    GLU A 329        49.276  21.204  34.506  1.00 18.40         A
      ATOM   2044   CA   GLU A 329        49.248  21.875  35.801  1.00 20.13         A
      ATOM   2045   CB   GLU A 329        49.587  23.363  35.657  1.00 20.36         A
      ATOM   2046   CG   GLU A 329        51.014  23.651  35.190  1.00 24.05         A
      ATOM   2047   CD   GLU A 329        51.191  23.518  33.688  1.00 25.93         A
  25  ATOM   2048   OE1  GLU A 329        50.213  23.154  32.995  1.00 26.61         A
      ATOM   2049   OE2  GLU A 329        52.311  23.781  33.198  1.00 27.19         A
      ATOM   2050   C    GLU A 329        47.890  21.718  36.480  1.00 19.36         A
      ATOM   2051   O    GLU A 329        47.775  21.879  37.694  1.00 18.74         A
      ATOM   2052   N    MET A 330        46.863  21.415  35.691  1.00 17.28         A
  30  ATOM   2053   CA   MET A 330        45.520  21.220  36.229  1.00 16.38         A
      ATOM   2054   CB   MET A 330        44.474  21.833  35.294  1.00 17.65         A
      ATOM   2055   CG   MET A 330        44.460  23.365  35.311  1.00 22.95         A
      ATOM   2056   SD   MET A 330        44.186  24.026  36.979  1.00 26.78         A
      ATOM   2057   CE   MET A 330        42.435  23.712  37.186  1.00 24.69         A
  35  ATOM   2058   C    MET A 330        45.257  19.730  36.422  1.00 14.30         A
      ATOM   2059   O    MET A 330        44.127  19.304  36.629  1.00 15.39         A
      ATOM   2060   N    GLU A 331        46.327  18.949  36.346  1.00 15.60         A
      ATOM   2061   CA   GLU A 331        46.289  17.501  36.531  1.00 17.08         A
      ATOM   2062   CB   GLU A 331        45.607  17.155  37.862  1.00 17.00         A
  40  ATOM   2063   CG   GLU A 331        46.070  18.027  39.038  1.00 17.46         A
      ATOM   2064   CD   GLU A 331        47.591  18.179  39.145  1.00 20.16         A
      ATOM   2065   OE1  GLU A 331        48.034  19.073  39.896  1.00 21.39         A
      ATOM   2066   OE2  GLU A 331        48.345  17.420  38.500  1.00 18.87         A
      ATOM   2067   C    GLU A 331        45.697  16.658  35.398  1.00 17.80         A
  45  ATOM   2068   O    GLU A 331        45.107  15.602  35.636  1.00 20.40         A
      ATOM   2069   N    GLY A 332        45.844  17.133  34.167  1.00 16.23         A
      ATOM   2070   CA   GLY A 332        45.420  16.353  33.015  1.00 14.10         A
      ATOM   2071   C    GLY A 332        43.982  16.154  32.596  1.00 13.54         A
      ATOM   2072   O    GLY A 332        43.063  16.864  33.017  1.00 11.96         A
  50  ATOM   2073   N    TYR A 333        43.804  15.141  31.750  1.00 14.37         A
      ATOM   2074   CA   TYR A 333        42.510  14.806  31.182  1.00 13.56         A
      ATOM   2075   CB   TYR A 333        42.722  13.892  29.968  1.00 15.00         A
      ATOM   2076   CG   TYR A 333        43.153  14.683  28.752  1.00 16.46         A
      ATOM   2077   CD1  TYR A 333        42.206  15.172  27.849  1.00 15.29         A
  55  ATOM   2078   CE1  TYR A 333        42.573  16.002  26.794  1.00 13.42         A
      ATOM   2079   CD2  TYR A 333        44.490  15.039  28.561  1.00 14.91         A
      ATOM   2080   CE2  TYR A 333        44.872  15.877  27.499  1.00 14.87         A
      ATOM   2081   CZ   TYR A 333        43.902  16.353  26.626  1.00 15.61         A
      ATOM   2082   OH   TYR A 333        44.244  17.197  25.599  1.00 17.29         A
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	ATOM	2083	C	TYR A 333	41.470	14.230	32.127	1.00	15.23	A
	ATOM	2084	O	TYR A 333	40.278	14.323	31.846	1.00	16.63	A
	ATOM	2085	N	GLY A 334	41.907	13.650	33.244	1.00	15.50	A
	ATOM	2086	CA	GLY A 334	40.957	13.100	34.202	1.00	15.07	A
5	ATOM	2087	C	GLY A 334	39.925	14.146	34.616	1.00	16.40	A
	ATOM	2088	O	GLY A 334	38.724	13.946	34.433	1.00	15.05	A
	ATOM	2089	N	PRO A 335	40.366	15.278	35.184	1.00	14.96	A
	ATOM	2090	CD	PRO A 335	41.727	15.531	35.689	1.00	15.88	A
	ATOM	2091	CA	PRO A 335	39.444	16.339	35.606	1.00	15.29	A
10	ATOM	2092	CB	PRO A 335	40.383	17.397	36.178	1.00	13.19	A
	ATOM	2093	CG	PRO A 335	41.485	16.569	36.758	1.00	13.81	A
	ATOM	2094	C	PRO A 335	38.594	16.877	34.448	1.00	15.84	A
	ATOM	2095	O	PRO A 335	37.423	17.204	34.631	1.00	14.84	A
	ATOM	2096	N	LEU A 336	39.184	16.971	33.257	1.00	16.12	A
15	ATOM	2097	CA	LEU A 336	38.450	17.465	32.094	1.00	15.52	A
	ATOM	2098	CB	LEU A 336	39.396	17.653	30.898	1.00	14.39	A
	ATOM	2099	CG	LEU A 336	38.770	17.991	29.538	1.00	15.46	A
	ATOM	2100	CD1	LEU A 336	37.836	19.182	29.662	1.00	11.25	A
	ATOM	2101	CD2	LEU A 336	39.884	18.285	28.528	1.00	14.11	A
20	ATOM	2102	C	LEU A 336	37.321	16.508	31.714	1.00	16.28	A
	ATOM	2103	O	LEU A 336	36.176	16.921	31.540	1.00	15.51	A
	ATOM	2104	N	LYS A 337	37.640	15.225	31.592	1.00	17.22	A
	ATOM	2105	CA	LYS A 337	36.624	14.243	31.235	1.00	17.39	A
	ATOM	2106	CB	LYS A 337	37.293	12.900	30.921	1.00	17.68	A
25	ATOM	2107	CG	LYS A 337	38.170	12.994	29.676	1.00	22.31	A
	ATOM	2108	CD	LYS A 337	39.213	11.892	29.592	1.00	24.60	A
	ATOM	2109	CE	LYS A 337	38.620	10.560	29.189	1.00	24.76	A
	ATOM	2110	NZ	LYS A 337	39.710	9.560	28.997	1.00	25.05	A
	ATOM	2111	C	LYS A 337	35.577	14.096	32.342	1.00	17.33	A
30	ATOM	2112	O	LYS A 337	34.456	13.652	32.090	1.00	14.42	A
	ATOM	2113	N	ALA A 338	35.928	14.500	33.559	1.00	15.83	A
	ATOM	2114	CA	ALA A 338	34.989	14.395	34.674	1.00	17.52	A
	ATOM	2115	CB	ALA A 338	35.749	14.167	35.980	1.00	19.68	A
	ATOM	2116	C	ALA A 338	34.095	15.621	34.804	1.00	18.83	A
35	ATOM	2117	O	ALA A 338	33.252	15.687	35.695	1.00	18.94	A
	ATOM	2118	N	HIS A 339	34.262	16.596	33.918	1.00	19.42	A
	ATOM	2119	CA	HIS A 339	33.438	17.796	34.004	1.00	19.28	A
	ATOM	2120	CB	HIS A 339	33.865	18.819	32.949	1.00	19.20	A
	ATOM	2121	CG	HIS A 339	33.163	20.134	33.074	1.00	20.26	A
40	ATOM	2122	CD2	HIS A 339	33.549	21.299	33.649	1.00	18.95	A
	ATOM	2123	ND1	HIS A 339	31.880	20.340	32.612	1.00	19.10	A
	ATOM	2124	CE1	HIS A 339	31.506	21.576	32.896	1.00	22.19	A
	ATOM	2125	NE2	HIS A 339	32.500	22.179	33.525	1.00	21.98	A
	ATOM	2126	C	HIS A 339	31.957	17.448	33.845	1.00	19.13	A
45	ATOM	2127	O	HIS A 339	31.597	16.576	33.061	1.00	19.52	A
	ATOM	2128	N	PRO A 340	31.079	18.125	34.606	1.00	19.80	A
	ATOM	2129	CD	PRO A 340	31.424	19.119	35.640	1.00	19.08	A
	ATOM	2130	CA	PRO A 340	29.630	17.900	34.569	1.00	20.52	A
	ATOM	2131	CB	PRO A 340	29.091	19.058	35.396	1.00	20.74	A
50	ATOM	2132	CG	PRO A 340	30.146	19.207	36.454	1.00	19.20	A
	ATOM	2133	C	PRO A 340	29.000	17.834	33.176	1.00	21.42	A
	ATOM	2134	O	PRO A 340	28.049	17.088	32.955	1.00	22.48	A
	ATOM	2135	N	PHE A 341	29.528	18.606	32.237	1.00	21.33	A
	ATOM	2136	CA	PHE A 341	28.985	18.610	30.886	1.00	21.57	A
55	ATOM	2137	CB	PHE A 341	29.739	19.624	30.017	1.00	21.64	A
	ATOM	2138	CG	PHE A 341	29.207	19.740	28.613	1.00	23.18	A
	ATOM	2139	CD1	PHE A 341	27.903	20.171	28.382	1.00	22.58	A
	ATOM	2140	CD2	PHE A 341	30.013	19.431	27.522	1.00	21.95	A
	ATOM	2141	CE1	PHE A 341	27.410	20.292	27.082	1.00	23.54	A

	ATOM	2142	CE2	PHE A 341	29.533	19.548	26.220	1.00	21.83	A
	ATOM	2143	CZ	PHE A 341	28.228	19.980	25.998	1.00	23.23	A
	ATOM	2144	C	PHE A 341	29.055	17.226	30.237	1.00	21.84	A
	ATOM	2145	O	PHE A 341	28.232	16.896	29.389	1.00	20.37	A
5	ATOM	2146	N	PHE A 342	30.034	16.422	30.640	1.00	20.51	A
	ATOM	2147	CA	PHE A 342	30.221	15.085	30.077	1.00	23.01	A
	ATOM	2148	CB	PHE A 342	31.710	14.809	29.850	1.00	18.00	A
	ATOM	2149	CG	PHE A 342	32.398	15.812	28.971	1.00	17.05	A
	ATOM	2150	CD1	PHE A 342	32.010	15.987	27.652	1.00	17.78	A
10	ATOM	2151	CD2	PHE A 342	33.487	16.534	29.450	1.00	15.72	A
	ATOM	2152	CE1	PHE A 342	32.702	16.867	26.811	1.00	18.08	A
	ATOM	2153	CE2	PHE A 342	34.184	17.414	28.617	1.00	17.45	A
	ATOM	2154	CZ	PHE A 342	33.790	17.578	27.298	1.00	16.56	A
	ATOM	2155	C	PHE A 342	29.679	13.972	30.976	1.00	24.95	A
15	ATOM	2156	O	PHE A 342	30.002	12.798	30.777	1.00	23.95	A
	ATOM	2157	N	GLU A 343	28.861	14.333	31.958	1.00	27.35	A
	ATOM	2158	CA	GLU A 343	28.325	13.349	32.897	1.00	30.28	A
	ATOM	2159	CB	GLU A 343	27.187	13.964	33.716	1.00	32.20	A
	ATOM	2160	CG	GLU A 343	26.581	12.991	34.714	1.00	39.71	A
20	ATOM	2161	CD	GLU A 343	25.628	13.661	35.688	1.00	44.72	A
	ATOM	2162	OE1	GLU A 343	24.661	14.314	35.234	1.00	47.55	A
	ATOM	2163	OE2	GLU A 343	25.847	13.526	36.911	1.00	46.89	A
	ATOM	2164	C	GLU A 343	27.852	12.017	32.305	1.00	28.98	A
	ATOM	2165	O	GLU A 343	28.225	10.952	32.800	1.00	31.73	A
25	ATOM	2166	N	SER A 344	27.037	12.067	31.258	1.00	26.09	A
	ATOM	2167	CA	SER A 344	26.520	10.838	30.656	1.00	28.36	A
	ATOM	2168	CB	SER A 344	25.129	11.089	30.067	1.00	28.73	A
	ATOM	2169	OG	SER A 344	25.203	11.942	28.940	1.00	30.91	A
	ATOM	2170	C	SER A 344	27.407	10.214	29.577	1.00	27.66	A
30	ATOM	2171	O	SER A 344	26.987	9.281	28.900	1.00	28.66	A
	ATOM	2172	N	VAL A 345	28.627	10.715	29.419	1.00	26.75	A
	ATOM	2173	CA	VAL A 345	29.534	10.183	28.402	1.00	23.44	A
	ATOM	2174	CB	VAL A 345	30.565	11.256	27.950	1.00	23.10	A
	ATOM	2175	CG1	VAL A 345	31.589	10.631	26.995	1.00	22.24	A
35	ATOM	2176	CG2	VAL A 345	29.854	12.418	27.275	1.00	20.05	A
	ATOM	2177	C	VAL A 345	30.326	8.957	28.855	1.00	24.26	A
	ATOM	2178	O	VAL A 345	30.876	8.930	29.960	1.00	22.83	A
	ATOM	2179	N	THR A 346	30.374	7.942	27.997	1.00	21.77	A
	ATOM	2180	CA	THR A 346	31.153	6.740	28.272	1.00	23.70	A
40	ATOM	2181	CB	THR A 346	30.391	5.455	27.857	1.00	26.53	A
	ATOM	2182	OG1	THR A 346	29.248	5.284	28.706	1.00	29.98	A
	ATOM	2183	CG2	THR A 346	31.289	4.231	27.990	1.00	24.28	A
	ATOM	2184	C	THR A 346	32.383	6.945	27.385	1.00	23.43	A
	ATOM	2185	O	THR A 346	32.306	6.827	26.160	1.00	24.50	A
45	ATOM	2186	N	TRP A 347	33.508	7.270	28.013	1.00	22.98	A
	ATOM	2187	CA	TRP A 347	34.744	7.569	27.300	1.00	23.81	A
	ATOM	2188	CB	TRP A 347	35.683	8.352	28.219	1.00	22.54	A
	ATOM	2189	CG	TRP A 347	35.128	9.658	28.693	1.00	20.61	A
	ATOM	2190	CD2	TRP A 347	35.257	10.927	28.040	1.00	19.11	A
50	ATOM	2191	CE2	TRP A 347	34.581	11.881	28.838	1.00	18.39	A
	ATOM	2192	CE3	TRP A 347	35.878	11.351	26.858	1.00	18.16	A
	ATOM	2193	CD1	TRP A 347	34.397	9.883	29.828	1.00	18.35	A
	ATOM	2194	NE1	TRP A 347	34.065	11.218	29.923	1.00	19.51	A
	ATOM	2195	CZ2	TRP A 347	34.510	13.234	28.491	1.00	16.88	A
55	ATOM	2196	CZ3	TRP A 347	35.808	12.701	26.511	1.00	17.23	A
	ATOM	2197	CH2	TRP A 347	35.127	13.624	27.327	1.00	18.16	A
	ATOM	2198	C	TRP A 347	35.538	6.429	26.675	1.00	25.79	A
	ATOM	2199	O	TRP A 347	36.304	6.654	25.742	1.00	24.67	A
	ATOM	2200	N	ALA A 348	35.360	5.215	27.183	1.00	27.10	A

	ATOM	2201	CA	ALA A 348	36.116	4.063	26.697	1.00 27.46	A
	ATOM	2202	CB	ALA A 348	35.899	2.869	27.636	1.00 27.09	A
	ATOM	2203	C	ALA A 348	35.895	3.620	25.256	1.00 27.18	A
	ATOM	2204	O	ALA A 348	36.830	3.148	24.613	1.00 29.41	A
5	ATOM	2205	N	ASN A 349	34.682	3.769	24.735	1.00 26.55	A
	ATOM	2206	CA	ASN A 349	34.418	3.310	23.375	1.00 27.28	A
	ATOM	2207	CB	ASN A 349	33.700	1.962	23.444	1.00 29.37	A
	ATOM	2208	CG	ASN A 349	32.299	2.088	24.013	1.00 30.92	A
	ATOM	2209	OD1	ASN A 349	32.045	2.942	24.859	1.00 30.17	A
10	ATOM	2210	ND2	ASN A 349	31.386	1.237	23.553	1.00 33.52	A
	ATOM	2211	C	ASN A 349	33.599	4.265	22.509	1.00 26.47	A
	ATOM	2212	O	ASN A 349	32.669	3.843	21.819	1.00 25.87	A
	ATOM	2213	N	LEU A 350	33.947	5.543	22.518	1.00 24.45	A
	ATOM	2214	CA	LEU A 350	33.203	6.510	21.721	1.00 23.14	A
15	ATOM	2215	CB	LEU A 350	33.837	7.898	21.848	1.00 23.22	A
	ATOM	2216	CG	LEU A 350	33.659	8.605	23.191	1.00 21.05	A
	ATOM	2217	CD1	LEU A 350	34.646	9.756	23.293	1.00 19.36	A
	ATOM	2218	CD2	LEU A 350	32.220	9.094	23.319	1.00 18.78	A
	ATOM	2219	C	LEU A 350	33.082	6.152	20.240	1.00 22.60	A
20	ATOM	2220	O	LEU A 350	32.011	6.296	19.650	1.00 21.15	A
	ATOM	2221	N	HIS A 351	34.165	5.689	19.627	1.00 23.13	A
	ATOM	2222	CA	HIS A 351	34.089	5.387	18.204	1.00 27.83	A
	ATOM	2223	CB	HIS A 351	35.506	5.325	17.596	1.00 29.36	A
	ATOM	2224	CG	HIS A 351	36.082	3.950	17.493	1.00 32.07	A
25	ATOM	2225	CD2	HIS A 351	36.611	3.128	18.431	1.00 32.39	A
	ATOM	2226	ND1	HIS A 351	36.197	3.285	16.291	1.00 33.02	A
	ATOM	2227	CE1	HIS A 351	36.775	2.113	16.493	1.00 33.58	A
	ATOM	2228	NE2	HIS A 351	37.036	1.992	17.782	1.00 31.76	A
	ATOM	2229	C	HIS A 351	33.258	4.144	17.874	1.00 28.12	A
30	ATOM	2230	O	HIS A 351	33.015	3.847	16.707	1.00 29.49	A
	ATOM	2231	N	GLN A 352	32.800	3.442	18.908	1.00 29.28	A
	ATOM	2232	CA	GLN A 352	31.963	2.255	18.726	1.00 29.67	A
	ATOM	2233	CB	GLN A 352	32.366	1.145	19.694	1.00 30.56	A
	ATOM	2234	CG	GLN A 352	33.169	0.041	19.041	1.00 30.88	A
35	ATOM	2235	CD	GLN A 352	34.493	-0.186	19.729	1.00 31.21	A
	ATOM	2236	OE1	GLN A 352	34.541	-0.450	20.928	1.00 30.76	A
	ATOM	2237	NE2	GLN A 352	35.578	-0.084	18.971	1.00 32.30	A
	ATOM	2238	C	GLN A 352	30.504	2.638	18.963	1.00 30.42	A
	ATOM	2239	O	GLN A 352	29.595	1.831	18.770	1.00 29.01	A
40	ATOM	2240	N	GLN A 353	30.290	3.875	19.397	1.00 27.64	A
	ATOM	2241	CA	GLN A 353	28.948	4.365	19.652	1.00 27.42	A
	ATOM	2242	CB	GLN A 353	28.977	5.401	20.775	1.00 25.77	A
	ATOM	2243	CG	GLN A 353	29.408	4.837	22.115	1.00 27.34	A
	ATOM	2244	CD	GLN A 353	29.638	5.914	23.156	1.00 27.19	A
45	ATOM	2245	OE1	GLN A 353	28.875	6.872	23.252	1.00 28.29	A
	ATOM	2246	NE2	GLN A 353	30.687	5.753	23.951	1.00 28.79	A
	ATOM	2247	C	GLN A 353	28.375	4.989	18.385	1.00 29.00	A
	ATOM	2248	O	GLN A 353	29.118	5.455	17.516	1.00 29.14	A
	ATOM	2249	N	THR A 354	27.053	4.984	18.276	1.00 27.31	A
50	ATOM	2250	CA	THR A 354	26.390	5.568	17.119	1.00 27.85	A
	ATOM	2251	CB	THR A 354	24.991	4.941	16.904	1.00 30.69	A
	ATOM	2252	OG1	THR A 354	25.132	3.532	16.665	1.00 30.07	A
	ATOM	2253	CG2	THR A 354	24.289	5.585	15.709	1.00 29.58	A
	ATOM	2254	C	THR A 354	26.244	7.062	17.376	1.00 26.85	A
55	ATOM	2255	O	THR A 354	25.592	7.475	18.329	1.00 25.77	A
	ATOM	2256	N	PRO A 355	26.867	7.898	16.533	1.00 27.22	A
	ATOM	2257	CD	PRO A 355	27.792	7.588	15.431	1.00 25.89	A
	ATOM	2258	CA	PRO A 355	26.763	9.346	16.734	1.00 27.23	A
	ATOM	2259	CB	PRO A 355	27.625	9.915	15.609	1.00 24.91	A

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      ATOM   2260  CG  PRO A 355      28.643   8.838  15.385  1.00 25.54       A
      ATOM   2261  C   PRO A 355      25.322   9.837  16.641  1.00 28.07       A
      ATOM   2262  O   PRO A 355      24.548   9.364  15.810  1.00 27.24       A
      ATOM   2263  N   PRO A 356      24.941  10.792  17.500  1.00 28.28       A
   5  ATOM   2264  CD  PRO A 356      25.752  11.560  18.462  1.00 28.31       A
      ATOM   2265  CA  PRO A 356      23.572  11.306  17.448  1.00 28.44       A
      ATOM   2266  CB  PRO A 356      23.539  12.301  18.604  1.00 28.11       A
      ATOM   2267  CG  PRO A 356      24.946  12.832  18.612  1.00 26.86       A
      ATOM   2268  C   PRO A 356      23.363  11.978  16.097  1.00 29.25       A
  10  ATOM   2269  O   PRO A 356      24.304  12.537  15.529  1.00 27.27       A
      ATOM   2270  N   ALA A 357      22.143  11.910  15.575  1.00 30.45       A
      ATOM   2271  CA  ALA A 357      21.848  12.521  14.287  1.00 32.81       A
      ATOM   2272  CB  ALA A 357      20.507  12.019  13.757  1.00 31.99       A
      ATOM   2273  C   ALA A 357      21.824  14.035  14.448  1.00 35.05       A
  15  ATOM   2274  O   ALA A 357      21.194  14.561  15.369  1.00 35.04       A
      ATOM   2275  N   LEU A 358      22.516  14.730  13.552  1.00 37.81       A
      ATOM   2276  CA  LEU A 358      22.578  16.185  13.597  1.00 42.15       A
      ATOM   2277  CB  LEU A 358      23.679  16.681  12.658  1.00 39.54       A
      ATOM   2278  CG  LEU A 358      25.086  16.285  13.109  1.00 39.51       A
  20  ATOM   2279  CD1 LEU A 358      26.102  16.686  12.062  1.00 39.29       A
      ATOM   2280  CD2 LEU A 358      25.395  16.953  14.445  1.00 40.01       A
      ATOM   2281  C   LEU A 358      21.241  16.837  13.242  1.00 45.91       A
      ATOM   2282  O   LEU A 358      20.874  16.927  12.069  1.00 45.71       A
      ATOM   2283  N   THR A 359      20.530  17.290  14.275  1.00 50.06       A
  25  ATOM   2284  CA  THR A 359      19.223  17.939  14.140  1.00 53.73       A
      ATOM   2285  CB  THR A 359      19.353  19.428  13.726  1.00 54.04       A
      ATOM   2286  OG1 THR A 359      19.995  19.521  12.448  1.00 56.35       A
      ATOM   2287  CG2 THR A 359      20.158  20.204  14.763  1.00 54.32       A
      ATOM   2288  C   THR A 359      18.309  17.236  13.139  1.00 54.47       A
  30  ATOM   2289  O   THR A 359      18.483  16.016  12.930  1.00 55.90       A
      ATOM   2290  OXT THR A 359      17.407  17.908  12.595  1.00 56.97       A
      TER
      ATOM      1  CB  PRO B  71      99.838  54.646  -7.659  1.00 20.00       6
      ATOM      2  CG  PRO B  71      99.216  55.105  -6.341  1.00 20.00       6
  35  ATOM      3  C   PRO B  71      98.903  54.776  -9.981  1.00 20.00       6
      ATOM      4  O   PRO B  71      98.022  53.925 -10.109  1.00 20.00       8
      ATOM      5  N   PRO B  71      97.782  55.851  -8.042  1.00 20.00       7
      ATOM      6  CD  PRO B  71      97.728  55.323  -6.668  1.00 20.00       6
      ATOM      7  CA  PRO B  71      99.087  55.515  -8.658  1.00 20.00       6
  40  ATOM      8  N   PRO B  72      99.732  55.097 -10.985  1.00 20.00       7
      ATOM      9  CD  PRO B  72     100.794  56.121 -10.977  1.00 20.00       6
      ATOM     10  CA  PRO B  72      99.645  54.451 -12.297  1.00 20.00       6
      ATOM     11  CB  PRO B  72     100.885  54.973 -13.017  1.00 20.00       6
      ATOM     12  CG  PRO B  72     101.026  56.352 -12.456  1.00 20.00       6
  45  ATOM     13  C   PRO B  72      99.627  52.924 -12.202  1.00 20.00       6
      ATOM     14  O   PRO B  72     100.246  52.338 -11.314  1.00 20.00       8
      ATOM     15  N   ALA B  73      98.906  52.293 -13.122  1.00 20.00       7
      ATOM     16  CA  ALA B  73      98.805  50.840 -13.167  1.00 20.00       6
      ATOM     17  CB  ALA B  73      97.420  50.392 -12.710  1.00 20.00       6
  50  ATOM     18  C   ALA B  73      99.053  50.398 -14.604  1.00 20.00       6
      ATOM     19  O   ALA B  73      99.027  51.215 -15.526  1.00 20.00       8
      ATOM     20  N   PRO B  74      99.313  49.100 -14.818  1.00 20.00       7
      ATOM     21  CD  PRO B  74      99.473  47.995 -13.857  1.00 20.00       6
      ATOM     22  CA  PRO B  74      99.553  48.642 -16.189  1.00 20.00       6
  55  ATOM     23  CB  PRO B  74      99.700  47.132 -16.023  1.00 20.00       6
      ATOM     24  CG  PRO B  74     100.292  47.004 -14.649  1.00 20.00       6
      ATOM     25  C   PRO B  74      98.371  49.018 -17.079  1.00 20.00       6
      ATOM     26  O   PRO B  74      97.279  49.296 -16.583  1.00 20.00       8
      ATOM     27  N   ALA B  75      98.589  49.037 -18.389  1.00 20.00       7
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	ATOM	28	CA	ALA	B	75	97.516	49.368	-19.321	1.00	20.00	6
	ATOM	29	CB	ALA	B	75	98.061	49.462	-20.745	1.00	20.00	6
	ATOM	30	C	ALA	B	75	96.446	48.285	-19.246	1.00	20.00	6
	ATOM	31	O	ALA	B	75	96.745	47.126	-18.961	1.00	20.00	8
5	ATOM	32	N	LYS	B	76	95.200	48.666	-19.494	1.00	20.00	7
	ATOM	33	CA	LYS	B	76	94.098	47.716	-19.463	1.00	20.00	6
	ATOM	34	CB	LYS	B	76	92.793	48.431	-19.805	1.00	20.00	6
	ATOM	35	CG	LYS	B	76	91.546	47.792	-19.225	1.00	20.00	6
	ATOM	36	CD	LYS	B	76	91.511	47.932	-17.711	1.00	20.00	6
10	ATOM	37	CE	LYS	B	76	90.184	47.454	-17.152	1.00	20.00	6
	ATOM	38	NZ	LYS	B	76	90.108	47.606	-15.673	1.00	20.00	7
	ATOM	39	C	LYS	B	76	94.389	46.645	-20.513	1.00	20.00	6
	ATOM	40	O	LYS	B	76	94.736	46.968	-21.645	1.00	20.00	8
	ATOM	41	N	LYS	B	77	94.269	45.374	-20.145	1.00	20.00	7
15	ATOM	42	CA	LYS	B	77	94.525	44.311	-21.107	1.00	20.00	6
	ATOM	43	CB	LYS	B	77	94.875	43.008	-20.384	1.00	20.00	6
	ATOM	44	CG	LYS	B	77	96.117	43.125	-19.506	1.00	20.00	6
	ATOM	45	CD	LYS	B	77	96.461	41.812	-18.842	1.00	20.00	6
	ATOM	46	CE	LYS	B	77	97.501	42.008	-17.745	1.00	20.00	6
20	ATOM	47	NZ	LYS	B	77	98.771	42.582	-18.255	1.00	20.00	7
	ATOM	48	C	LYS	B	77	93.311	44.111	-22.012	1.00	20.00	6
	ATOM	49	O	LYS	B	77	92.218	44.585	-21.704	1.00	20.00	8
	ATOM	50	N	ARG	B	78	93.514	43.418	-23.129	1.00	20.00	7
	ATOM	51	CA	ARG	B	78	92.442	43.158	-24.086	1.00	20.00	6
25	ATOM	52	CB	ARG	B	78	92.465	44.224	-25.193	1.00	20.00	6
	ATOM	53	CG	ARG	B	78	93.787	44.344	-25.925	1.00	20.00	6
	ATOM	54	CD	ARG	B	78	93.833	45.612	-26.771	1.00	20.00	6
	ATOM	55	NE	ARG	B	78	95.052	45.702	-27.575	1.00	20.00	7
	ATOM	56	CZ	ARG	B	78	96.287	45.751	-27.078	1.00	20.00	6
30	ATOM	57	NH1	ARG	B	78	96.486	45.721	-25.764	1.00	20.00	7
	ATOM	58	NH2	ARG	B	78	97.330	45.828	-27.897	1.00	20.00	7
	ATOM	59	C	ARG	B	78	92.570	41.754	-24.678	1.00	20.00	6
	ATOM	60	O	ARG	B	78	93.625	41.126	-24.581	1.00	20.00	8
	ATOM	61	N	PRO	B	79	91.494	41.240	-25.303	1.00	20.00	7
35	ATOM	62	CD	PRO	B	79	90.195	41.894	-25.543	1.00	20.00	6
	ATOM	63	CA	PRO	B	79	91.519	39.899	-25.896	1.00	20.00	6
	ATOM	64	CB	PRO	B	79	90.214	39.848	-26.691	1.00	20.00	6
	ATOM	65	CG	PRO	B	79	89.304	40.725	-25.889	1.00	20.00	6
	ATOM	66	C	PRO	B	79	92.737	39.614	-26.778	1.00	20.00	6
40	ATOM	67	O	PRO	B	79	93.311	38.523	-26.717	1.00	20.00	8
	ATOM	68	N	GLU	B	80	93.124	40.597	-27.589	1.00	20.00	7
	ATOM	69	CA	GLU	B	80	94.254	40.441	-28.503	1.00	20.00	6
	ATOM	70	CB	GLU	B	80	94.358	41.644	-29.446	1.00	20.00	6
	ATOM	71	CG	GLU	B	80	94.881	42.912	-28.800	1.00	20.00	6
45	ATOM	72	CD	GLU	B	80	95.009	44.057	-29.788	1.00	20.00	6
	ATOM	73	OE1	GLU	B	80	93.968	44.513	-30.308	1.00	20.00	8
	ATOM	74	OE2	GLU	B	80	96.150	44.498	-30.047	1.00	20.00	8
	ATOM	75	C	GLU	B	80	95.591	40.235	-27.787	1.00	20.00	6
	ATOM	76	O	GLU	B	80	96.558	39.795	-28.405	1.00	20.00	8
50	ATOM	77	N	ASP	B	81	95.656	40.559	-26.497	1.00	20.00	7
	ATOM	78	CA	ASP	B	81	96.902	40.380	-25.749	1.00	20.00	6
	ATOM	79	CB	ASP	B	81	96.888	41.192	-24.446	1.00	20.00	6
	ATOM	80	CG	ASP	B	81	96.774	42.688	-24.682	1.00	20.00	6
	ATOM	81	OD1	ASP	B	81	97.436	43.193	-25.606	1.00	20.00	8
55	ATOM	82	OD2	ASP	B	81	96.033	43.362	-23.933	1.00	20.00	8
	ATOM	83	C	ASP	B	81	97.111	38.914	-25.393	1.00	20.00	6
	ATOM	84	O	ASP	B	81	98.172	38.535	-24.890	1.00	20.00	8
	ATOM	85	N	PHE	B	82	96.103	38.093	-25.679	1.00	20.00	7
	ATOM	86	CA	PHE	B	82	96.140	36.677	-25.340	1.00	20.00	6

	ATOM	87	CB	PHE	B	82	95.056	36.369	-24.302	1.00	20.00	6
	ATOM	88	CG	PHE	B	82	95.157	37.187	-23.050	1.00	20.00	6
	ATOM	89	CD1	PHE	B	82	95.880	36.724	-21.959	1.00	20.00	6
	ATOM	90	CD2	PHE	B	82	94.525	38.423	-22.961	1.00	20.00	6
5	ATOM	91	CE1	PHE	B	82	95.976	37.479	-20.793	1.00	20.00	6
	ATOM	92	CE2	PHE	B	82	94.615	39.188	-21.800	1.00	20.00	6
	ATOM	93	CZ	PHE	B	82	95.343	38.712	-20.713	1.00	20.00	6
	ATOM	94	C	PHE	B	82	95.929	35.719	-26.496	1.00	20.00	6
	ATOM	95	O	PHE	B	82	95.342	36.061	-27.524	1.00	20.00	8
10	ATOM	96	N	LYS	B	83	96.406	34.500	-26.286	1.00	20.00	7
	ATOM	97	CA	LYS	B	83	96.242	33.411	-27.228	1.00	20.00	6
	ATOM	98	CB	LYS	B	83	97.594	32.777	-27.562	1.00	20.00	6
	ATOM	99	CG	LYS	B	83	97.503	31.531	-28.425	1.00	20.00	6
	ATOM	100	CD	LYS	B	83	98.888	31.074	-28.856	1.00	20.00	6
15	ATOM	101	CE	LYS	B	83	98.826	29.808	-29.699	1.00	20.00	6
	ATOM	102	NZ	LYS	B	83	98.287	28.654	-28.918	1.00	20.00	7
	ATOM	103	C	LYS	B	83	95.387	32.446	-26.416	1.00	20.00	6
	ATOM	104	O	LYS	B	83	95.884	31.776	-25.510	1.00	20.00	8
	ATOM	105	N	PHE	B	84	94.094	32.393	-26.710	1.00	20.00	7
20	ATOM	106	CA	PHE	B	84	93.217	31.511	-25.958	1.00	20.00	6
	ATOM	107	CB	PHE	B	84	91.758	31.928	-26.133	1.00	20.00	6
	ATOM	108	CG	PHE	B	84	91.426	33.228	-25.462	1.00	20.00	6
	ATOM	109	CD1	PHE	B	84	91.668	34.439	-26.099	1.00	20.00	6
	ATOM	110	CD2	PHE	B	84	90.907	33.243	-24.174	1.00	20.00	6
25	ATOM	111	CE1	PHE	B	84	91.400	35.644	-25.464	1.00	20.00	6
	ATOM	112	CE2	PHE	B	84	90.636	34.447	-23.528	1.00	20.00	6
	ATOM	113	CZ	PHE	B	84	90.884	35.646	-24.176	1.00	20.00	6
	ATOM	114	C	PHE	B	84	93.402	30.054	-26.335	1.00	20.00	6
	ATOM	115	O	PHE	B	84	93.734	29.734	-27.476	1.00	20.00	8
30	ATOM	116	N	GLY	B	85	93.196	29.178	-25.359	1.00	20.00	7
	ATOM	117	CA	GLY	B	85	93.349	27.758	-25.591	1.00	20.00	6
	ATOM	118	C	GLY	B	85	92.103	26.977	-25.221	1.00	20.00	6
	ATOM	119	O	GLY	B	85	90.982	27.393	-25.525	1.00	20.00	8
	ATOM	120	N	LYS	B	86	92.296	25.858	-24.534	1.00	20.00	7
35	ATOM	121	CA	LYS	B	86	91.182	25.005	-24.153	1.00	20.00	6
	ATOM	122	CB	LYS	B	86	91.695	23.640	-23.687	1.00	20.00	6
	ATOM	123	CG	LYS	B	86	92.421	23.667	-22.356	1.00	20.00	6
	ATOM	124	CD	LYS	B	86	92.855	22.272	-21.941	1.00	20.00	6
	ATOM	125	CE	LYS	B	86	93.685	22.319	-20.668	1.00	20.00	6
40	ATOM	126	NZ	LYS	B	86	94.209	20.975	-20.287	1.00	20.00	7
	ATOM	127	C	LYS	B	86	90.267	25.576	-23.077	1.00	20.00	6
	ATOM	128	O	LYS	B	86	90.668	26.410	-22.260	1.00	20.00	8
	ATOM	129	N	ILE	B	87	89.026	25.106	-23.102	1.00	20.00	7
	ATOM	130	CA	ILE	B	87	88.023	25.497	-22.131	1.00	20.00	6
45	ATOM	131	CB	ILE	B	87	86.604	25.159	-22.647	1.00	20.00	6
	ATOM	132	CG2	ILE	B	87	85.582	25.261	-21.503	1.00	20.00	6
	ATOM	133	CG1	ILE	B	87	86.260	26.085	-23.820	1.00	20.00	6
	ATOM	134	CD1	ILE	B	87	84.912	25.819	-24.463	1.00	20.00	6
	ATOM	135	C	ILE	B	87	88.312	24.687	-20.872	1.00	20.00	6
50	ATOM	136	O	ILE	B	87	88.396	23.461	-20.927	1.00	20.00	8
	ATOM	137	N	LEU	B	88	88.473	25.368	-19.742	1.00	20.00	7
	ATOM	138	CA	LEU	B	88	88.757	24.686	-18.486	1.00	20.00	6
	ATOM	139	CB	LEU	B	88	89.592	25.586	-17.575	1.00	20.00	6
	ATOM	140	CG	LEU	B	88	90.968	25.987	-18.112	1.00	20.00	6
55	ATOM	141	CD1	LEU	B	88	91.611	27.006	-17.186	1.00	20.00	6
	ATOM	142	CD2	LEU	B	88	91.836	24.756	-18.234	1.00	20.00	6
	ATOM	143	C	LEU	B	88	87.471	24.298	-17.776	1.00	20.00	6
	ATOM	144	O	LEU	B	88	87.434	23.334	-17.014	1.00	20.00	8
	ATOM	145	N	GLY	B	89	86.410	25.051	-18.024	1.00	20.00	7

	ATOM	146	CA	GLY	B	89	85.148	24.749	-17.382	1.00	20.00	6
	ATOM	147	C	GLY	B	89	84.038	25.599	-17.953	1.00	20.00	6
	ATOM	148	O	GLY	B	89	84.296	26.657	-18.541	1.00	20.00	8
	ATOM	149	N	GLU	B	90	82.807	25.133	-17.781	1.00	20.00	7
5	ATOM	150	CA	GLU	B	90	81.629	25.832	-18.279	1.00	20.00	6
	ATOM	151	CB	GLU	B	90	81.041	25.070	-19.471	1.00	20.00	6
	ATOM	152	CG	GLU	B	90	81.929	25.084	-20.706	1.00	20.00	6
	ATOM	153	CD	GLU	B	90	81.434	24.157	-21.802	1.00	20.00	6
	ATOM	154	OE1	GLU	B	90	81.539	22.923	-21.639	1.00	20.00	8
10	ATOM	155	OE2	GLU	B	90	80.935	24.662	-22.827	1.00	20.00	8
	ATOM	156	C	GLU	B	90	80.575	25.970	-17.188	1.00	20.00	6
	ATOM	157	O	GLU	B	90	80.208	24.994	-16.543	1.00	20.00	8
	ATOM	158	N	GLY	B	91	80.103	27.193	-16.979	1.00	20.00	7
	ATOM	159	CA	GLY	B	91	79.080	27.431	-15.979	1.00	20.00	6
15	ATOM	160	C	GLY	B	91	77.835	27.949	-16.673	1.00	20.00	6
	ATOM	161	O	GLY	B	91	77.804	28.046	-17.903	1.00	20.00	8
	ATOM	162	N	SER	B	92	76.808	28.291	-15.904	1.00	20.00	7
	ATOM	163	CA	SER	B	92	75.582	28.794	-16.508	1.00	20.00	6
	ATOM	164	CB	SER	B	92	74.428	28.719	-15.505	1.00	20.00	6
20	ATOM	165	OG	SER	B	92	74.786	29.335	-14.282	1.00	20.00	8
	ATOM	166	C	SER	B	92	75.726	30.219	-17.039	1.00	20.00	6
	ATOM	167	O	SER	B	92	75.078	30.585	-18.018	1.00	20.00	8
	ATOM	168	N	PHE	B	93	76.578	31.025	-16.411	1.00	20.00	7
	ATOM	169	CA	PHE	B	93	76.763	32.399	-16.870	1.00	20.00	6
25	ATOM	170	CB	PHE	B	93	76.276	33.384	-15.807	1.00	20.00	6
	ATOM	171	CG	PHE	B	93	74.832	33.220	-15.469	1.00	20.00	6
	ATOM	172	CD1	PHE	B	93	74.435	32.323	-14.483	1.00	20.00	6
	ATOM	173	CD2	PHE	B	93	73.859	33.914	-16.183	1.00	20.00	6
	ATOM	174	CE1	PHE	B	93	73.086	32.117	-14.210	1.00	20.00	6
30	ATOM	175	CE2	PHE	B	93	72.507	33.715	-15.919	1.00	20.00	6
	ATOM	176	CZ	PHE	B	93	72.120	32.812	-14.930	1.00	20.00	6
	ATOM	177	C	PHE	B	93	78.197	32.736	-17.240	1.00	20.00	6
	ATOM	178	O	PHE	B	93	78.543	33.908	-17.397	1.00	20.00	8
	ATOM	179	N	SER	B	94	79.030	31.713	-17.394	1.00	20.00	7
35	ATOM	180	CA	SER	B	94	80.421	31.948	-17.735	1.00	20.00	6
	ATOM	181	CB	SER	B	94	81.174	32.443	-16.503	1.00	20.00	6
	ATOM	182	OG	SER	B	94	81.237	31.410	-15.535	1.00	20.00	8
	ATOM	183	C	SER	B	94	81.123	30.707	-18.253	1.00	20.00	6
	ATOM	184	O	SER	B	94	80.666	29.584	-18.048	1.00	20.00	8
40	ATOM	185	N	THR	B	95	82.252	30.937	-18.913	1.00	20.00	7
	ATOM	186	CA	THR	B	95	83.088	29.879	-19.455	1.00	20.00	6
	ATOM	187	CB	THR	B	95	82.942	29.770	-20.985	1.00	20.00	6
	ATOM	188	OG1	THR	B	95	81.589	29.425	-21.309	1.00	20.00	8
	ATOM	189	CG2	THR	B	95	83.873	28.694	-21.536	1.00	20.00	6
45	ATOM	190	C	THR	B	95	84.524	30.264	-19.118	1.00	20.00	6
	ATOM	191	O	THR	B	95	84.957	31.388	-19.399	1.00	20.00	8
	ATOM	192	N	VAL	B	96	85.257	29.348	-18.498	1.00	20.00	7
	ATOM	193	CA	VAL	B	96	86.642	29.628	-18.141	1.00	20.00	6
	ATOM	194	CB	VAL	B	96	86.991	29.050	-16.761	1.00	20.00	6
50	ATOM	195	CG1	VAL	B	96	88.438	29.390	-16.407	1.00	20.00	6
	ATOM	196	CG2	VAL	B	96	86.041	29.627	-15.707	1.00	20.00	6
	ATOM	197	C	VAL	B	96	87.541	29.027	-19.210	1.00	20.00	6
	ATOM	198	O	VAL	B	96	87.432	27.845	-19.540	1.00	20.00	8
	ATOM	199	N	VAL	B	97	88.416	29.858	-19.763	1.00	20.00	7
55	ATOM	200	CA	VAL	B	97	89.312	29.430	-20.824	1.00	20.00	6
	ATOM	201	CB	VAL	B	97	89.006	30.194	-22.130	1.00	20.00	6
	ATOM	202	CG1	VAL	B	97	89.828	29.624	-23.279	1.00	20.00	6
	ATOM	203	CG2	VAL	B	97	87.515	30.116	-22.444	1.00	20.00	6
	ATOM	204	C	VAL	B	97	90.771	29.664	-20.458	1.00	20.00	6

	ATOM	205	O	VAL	B	97	91.122	30.698	-19.889	1.00	20.00	8
	ATOM	206	N	LEU	B	98	91.617	28.690	-20.770	1.00	20.00	7
	ATOM	207	CA	LEU	B	98	93.039	28.821	-20.499	1.00	20.00	6
	ATOM	208	CB	LEU	B	98	93.727	27.459	-20.618	1.00	20.00	6
5	ATOM	209	CG	LEU	B	98	95.240	27.421	-20.383	1.00	20.00	6
	ATOM	210	CD1	LEU	B	98	95.565	28.019	-19.021	1.00	20.00	6
	ATOM	211	CD2	LEU	B	98	95.739	25.987	-20.463	1.00	20.00	6
	ATOM	212	C	LEU	B	98	93.580	29.785	-21.552	1.00	20.00	6
	ATOM	213	O	LEU	B	98	93.293	29.637	-22.738	1.00	20.00	8
10	ATOM	214	N	ALA	B	99	94.343	30.783	-21.121	1.00	20.00	7
	ATOM	215	CA	ALA	B	99	94.897	31.767	-22.043	1.00	20.00	6
	ATOM	216	CB	ALA	B	99	94.087	33.055	-21.980	1.00	20.00	6
	ATOM	217	C	ALA	B	99	96.353	32.067	-21.723	1.00	20.00	6
	ATOM	218	O	ALA	B	99	96.748	32.110	-20.554	1.00	20.00	8
15	ATOM	219	N	ARG	B	100	97.152	32.270	-22.763	1.00	20.00	7
	ATOM	220	CA	ARG	B	100	98.554	32.596	-22.568	1.00	20.00	6
	ATOM	221	CB	ARG	B	100	99.442	31.657	-23.393	1.00	20.00	6
	ATOM	222	CG	ARG	B	100	100.934	31.833	-23.131	1.00	20.00	6
	ATOM	223	CD	ARG	B	100	101.770	30.835	-23.923	1.00	20.00	6
20	ATOM	224	NE	ARG	B	100	101.600	29.452	-23.469	1.00	20.00	7
	ATOM	225	CZ	ARG	B	100	102.059	28.970	-22.314	1.00	20.00	6
	ATOM	226	NH1	ARG	B	100	102.722	29.752	-21.473	1.00	20.00	7
	ATOM	227	NH2	ARG	B	100	101.864	27.694	-22.003	1.00	20.00	7
	ATOM	228	C	ARG	B	100	98.756	34.045	-23.004	1.00	20.00	6
25	ATOM	229	O	ARG	B	100	98.454	34.408	-24.146	1.00	20.00	8
	ATOM	230	N	GLU	B	101	99.228	34.883	-22.087	1.00	20.00	7
	ATOM	231	CA	GLU	B	101	99.470	36.286	-22.408	1.00	20.00	6
	ATOM	232	CB	GLU	B	101	99.709	37.091	-21.123	1.00	20.00	6
	ATOM	233	CG	GLU	B	101	99.986	38.571	-21.363	1.00	20.00	6
30	ATOM	234	CD	GLU	B	101	100.164	39.347	-20.075	1.00	20.00	6
	ATOM	235	OE1	GLU	B	101	100.717	38.780	-19.114	1.00	20.00	8
	ATOM	236	OE2	GLU	B	101	99.765	40.531	-20.025	1.00	20.00	8
	ATOM	237	C	GLU	B	101	100.703	36.338	-23.317	1.00	20.00	6
	ATOM	238	O	GLU	B	101	101.773	35.865	-22.944	1.00	20.00	8
35	ATOM	239	N	LEU	B	102	100.546	36.909	-24.507	1.00	20.00	7
	ATOM	240	CA	LEU	B	102	101.632	36.982	-25.482	1.00	20.00	6
	ATOM	241	CB	LEU	B	102	101.145	37.683	-26.753	1.00	20.00	6
	ATOM	242	CG	LEU	B	102	100.013	36.985	-27.517	1.00	20.00	6
	ATOM	243	CD1	LEU	B	102	99.500	37.897	-28.623	1.00	20.00	6
40	ATOM	244	CD2	LEU	B	102	100.517	35.670	-28.089	1.00	20.00	6
	ATOM	245	C	LEU	B	102	102.906	37.663	-25.000	1.00	20.00	6
	ATOM	246	O	LEU	B	102	104.000	37.137	-25.180	1.00	20.00	8
	ATOM	247	N	ALA	B	103	102.760	38.828	-24.382	1.00	20.00	7
	ATOM	248	CA	ALA	B	103	103.909	39.587	-23.910	1.00	20.00	6
45	ATOM	249	CB	ALA	B	103	103.464	41.002	-23.546	1.00	20.00	6
	ATOM	250	C	ALA	B	103	104.697	38.983	-22.747	1.00	20.00	6
	ATOM	251	O	ALA	B	103	105.832	39.389	-22.503	1.00	20.00	8
	ATOM	252	N	THR	B	104	104.122	38.007	-22.050	1.00	20.00	7
	ATOM	253	CA	THR	B	104	104.790	37.418	-20.893	1.00	20.00	6
50	ATOM	254	CB	THR	B	104	104.059	37.799	-19.592	1.00	20.00	6
	ATOM	255	OG1	THR	B	104	102.712	37.303	-19.648	1.00	20.00	8
	ATOM	256	CG2	THR	B	104	104.033	39.313	-19.404	1.00	20.00	6
	ATOM	257	C	THR	B	104	104.880	35.902	-20.901	1.00	20.00	6
	ATOM	258	O	THR	B	104	105.677	35.323	-20.160	1.00	20.00	8
55	ATOM	259	N	SER	B	105	104.042	35.274	-21.722	1.00	20.00	7
	ATOM	260	CA	SER	B	105	103.950	33.818	-21.842	1.00	20.00	6
	ATOM	261	CB	SER	B	105	105.344	33.213	-22.048	1.00	20.00	6
	ATOM	262	OG	SER	B	105	105.264	31.819	-22.287	1.00	20.00	8
	ATOM	263	C	SER	B	105	103.304	33.243	-20.576	1.00	20.00	6

	ATOM	264	O	SER	B	105	103.286	32.029	-20.363	1.00 20.00	8
	ATOM	265	N	ARG	B	106	102.771	34.124	-19.736	1.00 20.00	7
	ATOM	266	CA	ARG	B	106	102.089	33.709	-18.509	1.00 20.00	6
	ATOM	267	CB	ARG	B	106	101.833	34.914	-17.598	1.00 20.00	6
5	ATOM	268	CG	ARG	B	106	103.022	35.361	-16.781	1.00 20.00	6
	ATOM	269	CD	ARG	B	106	102.724	36.653	-16.045	1.00 20.00	6
	ATOM	270	NE	ARG	B	106	103.756	36.940	-15.051	1.00 20.00	7
	ATOM	271	CZ	ARG	B	106	103.964	38.132	-14.504	1.00 20.00	6
	ATOM	272	NH1	ARG	B	106	103.210	39.167	-14.858	1.00 20.00	7
10	ATOM	273	NH2	ARG	B	106	104.918	38.279	-13.590	1.00 20.00	7
	ATOM	274	C	ARG	B	106	100.743	33.082	-18.856	1.00 20.00	6
	ATOM	275	O	ARG	B	106	100.069	33.534	-19.777	1.00 20.00	8
	ATOM	276	N	GLU	B	107	100.354	32.049	-18.115	1.00 20.00	7
	ATOM	277	CA	GLU	B	107	99.072	31.390	-18.336	1.00 20.00	6
15	ATOM	278	CB	GLU	B	107	99.193	29.870	-18.212	1.00 20.00	6
	ATOM	279	CG	GLU	B	107	100.180	29.207	-19.144	1.00 20.00	6
	ATOM	280	CD	GLU	B	107	100.124	27.696	-19.023	1.00 20.00	6
	ATOM	281	OE1	GLU	B	107	99.373	27.068	-19.798	1.00 20.00	8
	ATOM	282	OE2	GLU	B	107	100.813	27.144	-18.138	1.00 20.00	8
20	ATOM	283	C	GLU	B	107	98.070	31.848	-17.285	1.00 20.00	6
	ATOM	284	O	GLU	B	107	98.368	31.833	-16.095	1.00 20.00	8
	ATOM	285	N	TYR	B	108	96.885	32.243	-17.727	1.00 20.00	7
	ATOM	286	CA	TYR	B	108	95.829	32.667	-16.817	1.00 20.00	6
	ATOM	287	CB	TYR	B	108	95.525	34.156	-16.979	1.00 20.00	6
25	ATOM	288	CG	TYR	B	108	96.603	35.089	-16.487	1.00 20.00	6
	ATOM	289	CD1	TYR	B	108	96.744	35.369	-15.129	1.00 20.00	6
	ATOM	290	CE1	TYR	B	108	97.727	36.260	-14.674	1.00 20.00	6
	ATOM	291	CD2	TYR	B	108	97.467	35.712	-17.386	1.00 20.00	6
	ATOM	292	CE2	TYR	B	108	98.442	36.597	-16.950	1.00 20.00	6
30	ATOM	293	CZ	TYR	B	108	98.569	36.869	-15.599	1.00 20.00	6
	ATOM	294	OH	TYR	B	108	99.529	37.756	-15.187	1.00 20.00	8
	ATOM	295	C	TYR	B	108	94.566	31.899	-17.167	1.00 20.00	6
	ATOM	296	O	TYR	B	108	94.389	31.463	-18.306	1.00 20.00	8
	ATOM	297	N	ALA	B	109	93.697	31.723	-16.181	1.00 20.00	7
35	ATOM	298	CA	ALA	B	109	92.421	31.073	-16.414	1.00 20.00	6
	ATOM	299	CB	ALA	B	109	92.024	30.225	-15.214	1.00 20.00	6
	ATOM	300	C	ALA	B	109	91.513	32.288	-16.542	1.00 20.00	6
	ATOM	301	O	ALA	B	109	91.278	33.003	-15.558	1.00 20.00	8
	ATOM	302	N	ILE	B	110	91.042	32.557	-17.756	1.00 20.00	7
40	ATOM	303	CA	ILE	B	110	90.186	33.711	-17.968	1.00 20.00	6
	ATOM	304	CB	ILE	B	110	90.574	34.462	-19.271	1.00 20.00	6
	ATOM	305	CG2	ILE	B	110	89.628	35.630	-19.507	1.00 20.00	6
	ATOM	306	CG1	ILE	B	110	92.023	34.962	-19.159	1.00 20.00	6
	ATOM	307	CD1	ILE	B	110	92.487	35.847	-20.312	1.00 20.00	6
45	ATOM	308	C	ILE	B	110	88.715	33.318	-18.004	1.00 20.00	6
	ATOM	309	O	ILE	B	110	88.285	32.527	-18.851	1.00 20.00	8
	ATOM	310	N	LYS	B	111	87.956	33.852	-17.052	1.00 20.00	7
	ATOM	311	CA	LYS	B	111	86.527	33.581	-16.975	1.00 20.00	6
	ATOM	312	CB	LYS	B	111	86.022	33.721	-15.531	1.00 20.00	6
50	ATOM	313	CG	LYS	B	111	84.509	33.598	-15.411	1.00 20.00	6
	ATOM	314	CD	LYS	B	111	84.025	33.590	-13.965	1.00 20.00	6
	ATOM	315	CE	LYS	B	111	84.318	32.262	-13.277	1.00 20.00	6
	ATOM	316	NZ	LYS	B	111	83.784	32.217	-11.875	1.00 20.00	7
	ATOM	317	C	LYS	B	111	85.844	34.601	-17.869	1.00 20.00	6
55	ATOM	318	O	LYS	B	111	86.017	35.807	-17.688	1.00 20.00	8
	ATOM	319	N	ILE	B	112	85.078	34.111	-18.838	1.00 20.00	7
	ATOM	320	CA	ILE	B	112	84.383	34.976	-19.782	1.00 20.00	6
	ATOM	321	CB	ILE	B	112	84.695	34.548	-21.233	1.00 20.00	6
	ATOM	322	CG2	ILE	B	112	84.042	35.505	-22.216	1.00 20.00	6

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        ATOM   323  CG1 ILE B 112      86.216  34.518 -21.440  1.00 20.00      6
        ATOM   324  CD1 ILE B 112      86.657  33.949 -22.779  1.00 20.00      6
        ATOM   325  C   ILE B 112      82.878  34.916 -19.538  1.00 20.00      6
        ATOM   326  O   ILE B 112      82.288  33.839 -19.510  1.00 20.00      8
   5    ATOM   327  N   LEU B 113      82.269  36.083 -19.347  1.00 20.00      7
        ATOM   328  CA  LEU B 113      80.835  36.172 -19.089  1.00 20.00      6
        ATOM   329  CB  LEU B 113      80.585  36.696 -17.669  1.00 20.00      6
        ATOM   330  CG  LEU B 113      81.350  36.038 -16.521  1.00 20.00      6
        ATOM   331  CD1 LEU B 113      82.743  36.638 -16.428  1.00 20.00      6
  10    ATOM   332  CD2 LEU B 113      80.609  36.258 -15.215  1.00 20.00      6
        ATOM   333  C   LEU B 113      80.172  37.110 -20.090  1.00 20.00      6
        ATOM   334  O   LEU B 113      80.634  38.232 -20.299  1.00 20.00      8
        ATOM   335  N   GLU B 114      79.088  36.653 -20.709  1.00 20.00      7
        ATOM   336  CA  GLU B 114      78.377  37.472 -21.681  1.00 20.00      6
  15    ATOM   337  CB  GLU B 114      77.514  36.586 -22.581  1.00 20.00      6
        ATOM   338  CG  GLU B 114      76.670  37.366 -23.571  1.00 20.00      6
        ATOM   339  CD  GLU B 114      75.749  36.473 -24.372  1.00 20.00      6
        ATOM   340  OE1 GLU B 114      75.083  35.613 -23.760  1.00 20.00      8
        ATOM   341  OE2 GLU B 114      75.684  36.638 -25.611  1.00 20.00      8
  20    ATOM   342  C   GLU B 114      77.509  38.491 -20.942  1.00 20.00      6
        ATOM   343  O   GLU B 114      76.673  38.122 -20.113  1.00 20.00      8
        ATOM   344  N   LYS B 115      77.709  39.771 -21.235  1.00 20.00      7
        ATOM   345  CA  LYS B 115      76.945  40.808 -20.553  1.00 20.00      6
        ATOM   346  CB  LYS B 115      77.433  42.202 -20.978  1.00 20.00      6
  25    ATOM   347  CG  LYS B 115      78.653  42.675 -20.183  1.00 20.00      6
        ATOM   348  CD  LYS B 115      79.174  44.045 -20.618  1.00 20.00      6
        ATOM   349  CE  LYS B 115      79.832  43.994 -21.992  1.00 20.00      6
        ATOM   350  NZ  LYS B 115      80.536  45.273 -22.323  1.00 20.00      7
        ATOM   351  C   LYS B 115      75.435  40.693 -20.743  1.00 20.00      6
  30    ATOM   352  O   LYS B 115      74.676  40.787 -19.778  1.00 20.00      8
        ATOM   353  N   ARG B 116      74.997  40.471 -21.977  1.00 20.00      7
        ATOM   354  CA  ARG B 116      73.570  40.363 -22.255  1.00 20.00      6
        ATOM   355  CB  ARG B 116      73.346  40.066 -23.743  1.00 20.00      6
        ATOM   356  CG  ARG B 116      71.893  39.821 -24.142  1.00 20.00      6
  35    ATOM   357  CD  ARG B 116      70.931  40.791 -23.465  1.00 20.00      6
        ATOM   358  NE  ARG B 116      71.401  42.172 -23.493  1.00 20.00      7
        ATOM   359  CZ  ARG B 116      70.780  43.177 -22.884  1.00 20.00      6
        ATOM   360  NH1 ARG B 116      69.663  42.949 -22.207  1.00 20.00      7
        ATOM   361  NH2 ARG B 116      71.278  44.405 -22.942  1.00 20.00      7
  40    ATOM   362  C   ARG B 116      72.888  39.298 -21.394  1.00 20.00      6
        ATOM   363  O   ARG B 116      71.862  39.567 -20.764  1.00 20.00      8
        ATOM   364  N   HIS B 117      73.463  38.101 -21.347  1.00 20.00      7
        ATOM   365  CA  HIS B 117      72.885  37.020 -20.556  1.00 20.00      6
        ATOM   366  CB  HIS B 117      73.704  35.738 -20.723  1.00 20.00      6
  45    ATOM   367  CG  HIS B 117      73.053  34.525 -20.133  1.00 20.00      6
        ATOM   368  CD2 HIS B 117      71.762  34.274 -19.810  1.00 20.00      6
        ATOM   369  ND1 HIS B 117      73.752  33.376 -19.836  1.00 20.00      7
        ATOM   370  CE1 HIS B 117      72.921  32.467 -19.355  1.00 20.00      6
        ATOM   371  NE2 HIS B 117      71.707  32.987 -19.330  1.00 20.00      7
  50    ATOM   372  C   HIS B 117      72.816  37.386 -19.077  1.00 20.00      6
        ATOM   373  O   HIS B 117      71.823  37.113 -18.409  1.00 20.00      8
        ATOM   374  N   ILE B 118      73.882  37.992 -18.564  1.00 20.00      7
        ATOM   375  CA  ILE B 118      73.927  38.391 -17.160  1.00 20.00      6
        ATOM   376  CB  ILE B 118      75.269  39.073 -16.827  1.00 20.00      6
  55    ATOM   377  CG2 ILE B 118      75.180  39.787 -15.486  1.00 20.00      6
        ATOM   378  CG1 ILE B 118      76.392  38.029 -16.834  1.00 20.00      6
        ATOM   379  CD1 ILE B 118      77.784  38.625 -16.709  1.00 20.00      6
        ATOM   380  C   ILE B 118      72.788  39.353 -16.833  1.00 20.00      6
        ATOM   381  O   ILE B 118      72.101  39.196 -15.827  1.00 20.00      8
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	ATOM	382	N	ILE	B	119	72.596	40.349	-17.690	1.00	20.00	7
	ATOM	383	CA	ILE	B	119	71.538	41.333	-17.494	1.00	20.00	6
	ATOM	384	CB	ILE	B	119	71.646	42.473	-18.539	1.00	20.00	6
	ATOM	385	CG2	ILE	B	119	70.396	43.357	-18.492	1.00	20.00	6
5	ATOM	386	CG1	ILE	B	119	72.919	43.292	-18.270	1.00	20.00	6
	ATOM	387	CD1	ILE	B	119	73.212	44.370	-19.314	1.00	20.00	6
	ATOM	388	C	ILE	B	119	70.154	40.687	-17.580	1.00	20.00	6
	ATOM	389	O	ILE	B	119	69.289	40.953	-16.747	1.00	20.00	8
	ATOM	390	N	LYS	B	120	69.950	39.832	-18.579	1.00	20.00	7
10	ATOM	391	CA	LYS	B	120	68.659	39.169	-18.754	1.00	20.00	6
	ATOM	392	CB	LYS	B	120	68.697	38.200	-19.935	1.00	20.00	6
	ATOM	393	CG	LYS	B	120	68.942	38.841	-21.284	1.00	20.00	6
	ATOM	394	CD	LYS	B	120	68.926	37.782	-22.387	1.00	20.00	6
	ATOM	395	CE	LYS	B	120	69.934	36.665	-22.093	1.00	20.00	6
15	ATOM	396	NZ	LYS	B	120	69.950	35.599	-23.127	1.00	20.00	7
	ATOM	397	C	LYS	B	120	68.229	38.398	-17.513	1.00	20.00	6
	ATOM	398	O	LYS	B	120	67.077	38.490	-17.092	1.00	20.00	8
	ATOM	399	N	GLU	B	121	69.154	37.639	-16.930	1.00	20.00	7
	ATOM	400	CA	GLU	B	121	68.851	36.839	-15.747	1.00	20.00	6
20	ATOM	401	CB	GLU	B	121	69.678	35.549	-15.758	1.00	20.00	6
	ATOM	402	CG	GLU	B	121	69.485	34.674	-16.995	1.00	20.00	6
	ATOM	403	CD	GLU	B	121	68.029	34.326	-17.248	1.00	20.00	6
	ATOM	404	OE1	GLU	B	121	67.339	33.904	-16.295	1.00	20.00	8
	ATOM	405	OE2	GLU	B	121	67.574	34.470	-18.404	1.00	20.00	8
25	ATOM	406	C	GLU	B	121	69.071	37.573	-14.424	1.00	20.00	6
	ATOM	407	O	GLU	B	121	69.117	36.946	-13.362	1.00	20.00	8
	ATOM	408	N	ASN	B	122	69.208	38.895	-14.485	1.00	20.00	7
	ATOM	409	CA	ASN	B	122	69.411	39.699	-13.281	1.00	20.00	6
	ATOM	410	CB	ASN	B	122	68.132	39.715	-12.439	1.00	20.00	6
30	ATOM	411	CG	ASN	B	122	66.952	40.314	-13.177	1.00	20.00	6
	ATOM	412	OD1	ASN	B	122	66.428	39.725	-14.121	1.00	20.00	8
	ATOM	413	ND2	ASN	B	122	66.530	41.498	-12.748	1.00	20.00	7
	ATOM	414	C	ASN	B	122	70.563	39.180	-12.419	1.00	20.00	6
	ATOM	415	O	ASN	B	122	70.408	39.007	-11.212	1.00	20.00	8
35	ATOM	416	N	LYS	B	123	71.716	38.942	-13.033	1.00	20.00	7
	ATOM	417	CA	LYS	B	123	72.870	38.434	-12.301	1.00	20.00	6
	ATOM	418	CB	LYS	B	123	73.500	37.266	-13.065	1.00	20.00	6
	ATOM	419	CG	LYS	B	123	72.568	36.086	-13.276	1.00	20.00	6
	ATOM	420	CD	LYS	B	123	72.065	35.539	-11.948	1.00	20.00	6
40	ATOM	421	CE	LYS	B	123	71.032	34.445	-12.159	1.00	20.00	6
	ATOM	422	NZ	LYS	B	123	70.421	34.016	-10.871	1.00	20.00	7
	ATOM	423	C	LYS	B	123	73.931	39.498	-12.054	1.00	20.00	6
	ATOM	424	O	LYS	B	123	75.035	39.183	-11.611	1.00	20.00	8
	ATOM	425	N	VAL	B	124	73.607	40.753	-12.340	1.00	20.00	7
45	ATOM	426	CA	VAL	B	124	74.575	41.822	-12.145	1.00	20.00	6
	ATOM	427	CB	VAL	B	124	73.997	43.201	-12.547	1.00	20.00	6
	ATOM	428	CG1	VAL	B	124	75.035	44.290	-12.302	1.00	20.00	6
	ATOM	429	CG2	VAL	B	124	73.608	43.186	-14.022	1.00	20.00	6
	ATOM	430	C	VAL	B	124	75.091	41.885	-10.712	1.00	20.00	6
50	ATOM	431	O	VAL	B	124	76.278	42.115	-10.490	1.00	20.00	8
	ATOM	432	N	PRO	B	125	74.207	41.695	-9.716	1.00	20.00	7
	ATOM	433	CD	PRO	B	125	72.735	41.613	-9.757	1.00	20.00	6
	ATOM	434	CA	PRO	B	125	74.688	41.747	-8.331	1.00	20.00	6
	ATOM	435	CB	PRO	B	125	73.411	41.558	-7.512	1.00	20.00	6
55	ATOM	436	CG	PRO	B	125	72.346	42.152	-8.396	1.00	20.00	6
	ATOM	437	C	PRO	B	125	75.715	40.643	-8.051	1.00	20.00	6
	ATOM	438	O	PRO	B	125	76.683	40.851	-7.325	1.00	20.00	8
	ATOM	439	N	TYR	B	126	75.493	39.475	-8.640	1.00	20.00	7
	ATOM	440	CA	TYR	B	126	76.380	38.334	-8.440	1.00	20.00	6

	ATOM	441	CB	TYR B 126	75.699	37.059	-8.942	1.00	20.00	6
	ATOM	442	CG	TYR B 126	74.479	36.687	-8.127	1.00	20.00	6
	ATOM	443	CD1	TYR B 126	74.611	36.068	-6.884	1.00	20.00	6
	ATOM	444	CE1	TYR B 126	73.491	35.748	-6.112	1.00	20.00	6
5	ATOM	445	CD2	TYR B 126	73.193	36.981	-8.583	1.00	20.00	6
	ATOM	446	CE2	TYR B 126	72.063	36.667	-7.817	1.00	20.00	6
	ATOM	447	CZ	TYR B 126	72.223	36.052	-6.584	1.00	20.00	6
	ATOM	448	OH	TYR B 126	71.118	35.743	-5.823	1.00	20.00	8
	ATOM	449	C	TYR B 126	77.738	38.511	-9.113	1.00	20.00	6
10	ATOM	450	O	TYR B 126	78.777	38.273	-8.492	1.00	20.00	8
	ATOM	451	N	VAL B 127	77.738	38.931	-10.374	1.00	20.00	7
	ATOM	452	CA	VAL B 127	78.994	39.123	-11.085	1.00	20.00	6
	ATOM	453	CB	VAL B 127	78.756	39.466	-12.567	1.00	20.00	6
	ATOM	454	CG1	VAL B 127	80.096	39.637	-13.275	1.00	20.00	6
15	ATOM	455	CG2	VAL B 127	77.949	38.357	-13.234	1.00	20.00	6
	ATOM	456	C	VAL B 127	79.798	40.242	-10.427	1.00	20.00	6
	ATOM	457	O	VAL B 127	81.016	40.148	-10.292	1.00	20.00	8
	ATOM	458	N	THR B 128	79.105	41.293	-10.006	1.00	20.00	7
	ATOM	459	CA	THR B 128	79.746	42.424	-9.345	1.00	20.00	6
20	ATOM	460	CB	THR B 128	78.721	43.548	-9.070	1.00	20.00	6
	ATOM	461	OG1	THR B 128	78.194	44.025	-10.316	1.00	20.00	8
	ATOM	462	CG2	THR B 128	79.371	44.703	-8.330	1.00	20.00	6
	ATOM	463	C	THR B 128	80.372	41.979	-8.019	1.00	20.00	6
	ATOM	464	O	THR B 128	81.500	42.355	-7.696	1.00	20.00	8
25	ATOM	465	N	ARG B 129	79.637	41.172	-7.256	1.00	20.00	7
	ATOM	466	CA	ARG B 129	80.126	40.678	-5.971	1.00	20.00	6
	ATOM	467	CB	ARG B 129	79.035	39.888	-5.254	1.00	20.00	6
	ATOM	468	CG	ARG B 129	79.428	39.438	-3.852	1.00	20.00	6
	ATOM	469	CD	ARG B 129	78.351	38.554	-3.278	1.00	20.00	6
30	ATOM	470	NE	ARG B 129	77.048	39.209	-3.315	1.00	20.00	7
	ATOM	471	CZ	ARG B 129	75.894	38.569	-3.484	1.00	20.00	6
	ATOM	472	NH1	ARG B 129	75.878	37.250	-3.636	1.00	20.00	7
	ATOM	473	NH2	ARG B 129	74.756	39.248	-3.501	1.00	20.00	7
	ATOM	474	C	ARG B 129	81.354	39.788	-6.146	1.00	20.00	6
35	ATOM	475	O	ARG B 129	82.315	39.885	-5.379	1.00	20.00	8
	ATOM	476	N	GLU B 130	81.316	38.917	-7.151	1.00	20.00	7
	ATOM	477	CA	GLU B 130	82.439	38.029	-7.421	1.00	20.00	6
	ATOM	478	CB	GLU B 130	82.191	37.211	-8.692	1.00	20.00	6
	ATOM	479	CG	GLU B 130	83.408	36.427	-9.167	1.00	20.00	6
40	ATOM	480	CD	GLU B 130	83.060	35.338	-10.168	1.00	20.00	6
	ATOM	481	OE1	GLU B 130	82.227	35.590	-11.061	1.00	20.00	8
	ATOM	482	OE2	GLU B 130	83.626	34.231	-10.068	1.00	20.00	8
	ATOM	483	C	GLU B 130	83.708	38.853	-7.580	1.00	20.00	6
	ATOM	484	O	GLU B 130	84.723	38.575	-6.940	1.00	20.00	8
45	ATOM	485	N	ARG B 131	83.641	39.874	-8.428	1.00	20.00	7
	ATOM	486	CA	ARG B 131	84.788	40.742	-8.673	1.00	20.00	6
	ATOM	487	CB	ARG B 131	84.459	41.759	-9.777	1.00	20.00	6
	ATOM	488	CG	ARG B 131	85.580	42.753	-10.035	1.00	20.00	6
	ATOM	489	CD	ARG B 131	85.262	43.716	-11.167	1.00	20.00	6
50	ATOM	490	NE	ARG B 131	86.351	44.673	-11.355	1.00	20.00	7
	ATOM	491	CZ	ARG B 131	86.416	45.561	-12.343	1.00	20.00	6
	ATOM	492	NH1	ARG B 131	85.450	45.623	-13.250	1.00	20.00	7
	ATOM	493	NH2	ARG B 131	87.450	46.388	-12.426	1.00	20.00	7
	ATOM	494	C	ARG B 131	85.228	41.485	-7.409	1.00	20.00	6
55	ATOM	495	O	ARG B 131	86.413	41.500	-7.071	1.00	20.00	8
	ATOM	496	N	ASP B 132	84.277	42.103	-6.715	1.00	20.00	7
	ATOM	497	CA	ASP B 132	84.594	42.848	-5.505	1.00	20.00	6
	ATOM	498	CB	ASP B 132	83.350	43.575	-4.987	1.00	20.00	6
	ATOM	499	CG	ASP B 132	82.865	44.658	-5.943	1.00	20.00	6

	ATOM	500	OD1	ASP	B	132	83.612	45.010	-6.886	1.00	20.00	8
	ATOM	501	OD2	ASP	B	132	81.739	45.167	-5.747	1.00	20.00	8
	ATOM	502	C	ASP	B	132	85.192	41.969	-4.401	1.00	20.00	6
	ATOM	503	O	ASP	B	132	86.191	42.337	-3.783	1.00	20.00	8
5	ATOM	504	N	VAL	B	133	84.596	40.809	-4.150	1.00	20.00	7
	ATOM	505	CA	VAL	B	133	85.131	39.933	-3.116	1.00	20.00	6
	ATOM	506	CB	VAL	B	133	84.226	38.698	-2.885	1.00	20.00	6
	ATOM	507	CG1	VAL	B	133	84.920	37.713	-1.957	1.00	20.00	6
	ATOM	508	CG2	VAL	B	133	82.893	39.135	-2.271	1.00	20.00	6
10	ATOM	509	C	VAL	B	133	86.540	39.470	-3.477	1.00	20.00	6
	ATOM	510	O	VAL	B	133	87.460	39.602	-2.675	1.00	20.00	8
	ATOM	511	N	MET	B	134	86.721	38.950	-4.688	1.00	20.00	7
	ATOM	512	CA	MET	B	134	88.040	38.474	-5.083	1.00	20.00	6
	ATOM	513	CB	MET	B	134	88.004	37.879	-6.492	1.00	20.00	6
15	ATOM	514	CG	MET	B	134	87.183	36.603	-6.573	1.00	20.00	6
	ATOM	515	SD	MET	B	134	87.477	35.650	-8.077	1.00	20.00	16
	ATOM	516	CE	MET	B	134	88.730	34.515	-7.475	1.00	20.00	6
	ATOM	517	C	MET	B	134	89.115	39.552	-4.994	1.00	20.00	6
	ATOM	518	O	MET	B	134	90.253	39.264	-4.626	1.00	20.00	8
20	ATOM	519	N	SER	B	135	88.758	40.790	-5.319	1.00	20.00	7
	ATOM	520	CA	SER	B	135	89.708	41.899	-5.260	1.00	20.00	6
	ATOM	521	CB	SER	B	135	89.084	43.175	-5.836	1.00	20.00	6
	ATOM	522	OG	SER	B	135	88.742	43.009	-7.202	1.00	20.00	8
	ATOM	523	C	SER	B	135	90.165	42.184	-3.830	1.00	20.00	6
25	ATOM	524	O	SER	B	135	91.228	42.762	-3.614	1.00	20.00	8
	ATOM	525	N	ARG	B	136	89.354	41.782	-2.857	1.00	20.00	7
	ATOM	526	CA	ARG	B	136	89.672	42.013	-1.450	1.00	20.00	6
	ATOM	527	CB	ARG	B	136	88.384	42.156	-0.637	1.00	20.00	6
	ATOM	528	CG	ARG	B	136	87.509	43.336	-1.018	1.00	20.00	6
30	ATOM	529	CD	ARG	B	136	86.215	43.306	-0.211	1.00	20.00	6
	ATOM	530	NE	ARG	B	136	86.491	43.117	1.209	1.00	20.00	7
	ATOM	531	CZ	ARG	B	136	85.565	42.888	2.132	1.00	20.00	6
	ATOM	532	NH1	ARG	B	136	84.285	42.821	1.786	1.00	20.00	7
	ATOM	533	NH2	ARG	B	136	85.920	42.715	3.401	1.00	20.00	7
35	ATOM	534	C	ARG	B	136	90.506	40.891	-0.839	1.00	20.00	6
	ATOM	535	O	ARG	B	136	91.091	41.054	0.231	1.00	20.00	8
	ATOM	536	N	LEU	B	137	90.556	39.752	-1.515	1.00	20.00	7
	ATOM	537	CA	LEU	B	137	91.300	38.609	-1.005	1.00	20.00	6
	ATOM	538	CB	LEU	B	137	90.665	37.307	-1.504	1.00	20.00	6
40	ATOM	539	CG	LEU	B	137	89.172	37.099	-1.213	1.00	20.00	6
	ATOM	540	CD1	LEU	B	137	88.748	35.728	-1.734	1.00	20.00	6
	ATOM	541	CD2	LEU	B	137	88.897	37.205	0.280	1.00	20.00	6
	ATOM	542	C	LEU	B	137	92.771	38.648	-1.402	1.00	20.00	6
	ATOM	543	O	LEU	B	137	93.103	38.871	-2.566	1.00	20.00	8
45	ATOM	544	N	ASP	B	138	93.645	38.436	-0.424	1.00	20.00	7
	ATOM	545	CA	ASP	B	138	95.086	38.422	-0.656	1.00	20.00	6
	ATOM	546	CB	ASP	B	138	95.696	39.797	-0.352	1.00	20.00	6
	ATOM	547	CG	ASP	B	138	97.179	39.854	-0.674	1.00	20.00	6
	ATOM	548	OD1	ASP	B	138	97.601	39.173	-1.634	1.00	20.00	8
50	ATOM	549	OD2	ASP	B	138	97.920	40.581	0.022	1.00	20.00	8
	ATOM	550	C	ASP	B	138	95.678	37.369	0.263	1.00	20.00	6
	ATOM	551	O	ASP	B	138	96.353	37.685	1.243	1.00	20.00	8
	ATOM	552	N	HIS	B	139	95.410	36.111	-0.065	1.00	20.00	7
	ATOM	553	CA	HIS	B	139	95.871	34.984	0.731	1.00	20.00	6
55	ATOM	554	CB	HIS	B	139	94.769	34.610	1.737	1.00	20.00	6
	ATOM	555	CG	HIS	B	139	95.173	33.561	2.725	1.00	20.00	6
	ATOM	556	CD2	HIS	B	139	95.543	33.657	4.025	1.00	20.00	6
	ATOM	557	ND1	HIS	B	139	95.241	32.221	2.405	1.00	20.00	7
	ATOM	558	CE1	HIS	B	139	95.635	31.537	3.466	1.00	20.00	6

	ATOM	559	NE2	HIS	B	139	95.825	32.385	4.461	1.00	20.00	7
	ATOM	560	C	HIS	B	139	96.176	33.828	-0.221	1.00	20.00	6
	ATOM	561	O	HIS	B	139	95.444	33.595	-1.182	1.00	20.00	8
	ATOM	562	N	PRO	B	140	97.257	33.080	0.038	1.00	20.00	7
5	ATOM	563	CD	PRO	B	140	98.128	33.140	1.225	1.00	20.00	6
	ATOM	564	CA	PRO	B	140	97.635	31.959	-0.827	1.00	20.00	6
	ATOM	565	CB	PRO	B	140	98.913	31.433	-0.171	1.00	20.00	6
	ATOM	566	CG	PRO	B	140	98.687	31.730	1.277	1.00	20.00	6
	ATOM	567	C	PRO	B	140	96.614	30.846	-1.072	1.00	20.00	6
10	ATOM	568	O	PRO	B	140	96.747	30.107	-2.044	1.00	20.00	8
	ATOM	569	N	PHE	B	141	95.607	30.712	-0.211	1.00	20.00	7
	ATOM	570	CA	PHE	B	141	94.620	29.649	-0.398	1.00	20.00	6
	ATOM	571	CB	PHE	B	141	94.206	29.056	0.961	1.00	20.00	6
	ATOM	572	CG	PHE	B	141	95.321	28.335	1.681	1.00	20.00	6
15	ATOM	573	CD1	PHE	B	141	96.351	27.716	0.967	1.00	20.00	6
	ATOM	574	CD2	PHE	B	141	95.311	28.227	3.067	1.00	20.00	6
	ATOM	575	CE1	PHE	B	141	97.350	27.000	1.627	1.00	20.00	6
	ATOM	576	CE2	PHE	B	141	96.307	27.510	3.740	1.00	20.00	6
	ATOM	577	CZ	PHE	B	141	97.328	26.895	3.018	1.00	20.00	6
20	ATOM	578	C	PHE	B	141	93.371	30.063	-1.181	1.00	20.00	6
	ATOM	579	O	PHE	B	141	92.335	29.398	-1.114	1.00	20.00	8
	ATOM	580	N	PHE	B	142	93.471	31.150	-1.934	1.00	20.00	7
	ATOM	581	CA	PHE	B	142	92.337	31.625	-2.721	1.00	20.00	6
	ATOM	582	CB	PHE	B	142	91.739	32.883	-2.082	1.00	20.00	6
25	ATOM	583	CG	PHE	B	142	91.048	32.628	-0.772	1.00	20.00	6
	ATOM	584	CD1	PHE	B	142	89.715	32.227	-0.740	1.00	20.00	6
	ATOM	585	CD2	PHE	B	142	91.741	32.747	0.429	1.00	20.00	6
	ATOM	586	CE1	PHE	B	142	89.080	31.944	0.472	1.00	20.00	6
	ATOM	587	CE2	PHE	B	142	91.116	32.465	1.647	1.00	20.00	6
30	ATOM	588	CZ	PHE	B	142	89.785	32.064	1.667	1.00	20.00	6
	ATOM	589	C	PHE	B	142	92.758	31.945	-4.146	1.00	20.00	6
	ATOM	590	O	PHE	B	142	93.865	32.429	-4.371	1.00	20.00	8
	ATOM	591	N	VAL	B	143	91.883	31.653	-5.106	1.00	20.00	7
	ATOM	592	CA	VAL	B	143	92.167	31.960	-6.504	1.00	20.00	6
35	ATOM	593	CB	VAL	B	143	91.009	31.513	-7.435	1.00	20.00	6
	ATOM	594	CG1	VAL	B	143	91.116	32.209	-8.795	1.00	20.00	6
	ATOM	595	CG2	VAL	B	143	91.061	30.000	-7.623	1.00	20.00	6
	ATOM	596	C	VAL	B	143	92.301	33.469	-6.545	1.00	20.00	6
	ATOM	597	O	VAL	B	143	91.505	34.179	-5.932	1.00	20.00	8
40	ATOM	598	N	LYS	B	144	93.312	33.957	-7.252	1.00	20.00	7
	ATOM	599	CA	LYS	B	144	93.547	35.392	-7.340	1.00	20.00	6
	ATOM	600	CB	LYS	B	144	95.051	35.689	-7.267	1.00	20.00	6
	ATOM	601	CG	LYS	B	144	95.382	37.182	-7.318	1.00	20.00	6
	ATOM	602	CD	LYS	B	144	96.881	37.441	-7.201	1.00	20.00	6
45	ATOM	603	CE	LYS	B	144	97.191	38.936	-7.298	1.00	20.00	6
	ATOM	604	NZ	LYS	B	144	98.661	39.215	-7.246	1.00	20.00	7
	ATOM	605	C	LYS	B	144	92.989	36.003	-8.614	1.00	20.00	6
	ATOM	606	O	LYS	B	144	92.993	35.371	-9.675	1.00	20.00	8
	ATOM	607	N	LEU	B	145	92.495	37.230	-8.490	1.00	20.00	7
50	ATOM	608	CA	LEU	B	145	91.968	37.975	-9.624	1.00	20.00	6
	ATOM	609	CB	LEU	B	145	90.678	38.703	-9.234	1.00	20.00	6
	ATOM	610	CG	LEU	B	145	89.938	39.486	-10.326	1.00	20.00	6
	ATOM	611	CD1	LEU	B	145	88.611	39.992	-9.782	1.00	20.00	6
	ATOM	612	CD2	LEU	B	145	90.791	40.652	-10.806	1.00	20.00	6
55	ATOM	613	C	LEU	B	145	93.059	38.984	-9.968	1.00	20.00	6
	ATOM	614	O	LEU	B	145	93.291	39.940	-9.216	1.00	20.00	8
	ATOM	615	N	TYR	B	146	93.735	38.770	-11.093	1.00	20.00	7
	ATOM	616	CA	TYR	B	146	94.815	39.657	-11.517	1.00	20.00	6
	ATOM	617	CB	TYR	B	146	95.821	38.904	-12.389	1.00	20.00	6

	ATOM	618	CG	TYR	B	146	96.624	37.858	-11.661	1.00	20.00	6
	ATOM	619	CD1	TYR	B	146	96.139	36.559	-11.498	1.00	20.00	6
	ATOM	620	CE1	TYR	B	146	96.894	35.589	-10.836	1.00	20.00	6
	ATOM	621	CD2	TYR	B	146	97.878	38.165	-11.140	1.00	20.00	6
5	ATOM	622	CE2	TYR	B	146	98.639	37.208	-10.476	1.00	20.00	6
	ATOM	623	CZ	TYR	B	146	98.144	35.925	-10.331	1.00	20.00	6
	ATOM	624	OH	TYR	B	146	98.920	34.981	-9.706	1.00	20.00	8
	ATOM	625	C	TYR	B	146	94.357	40.884	-12.293	1.00	20.00	6
	ATOM	626	O	TYR	B	146	94.933	41.963	-12.160	1.00	20.00	8
10	ATOM	627	N	PHE	B	147	93.326	40.722	-13.110	1.00	20.00	7
	ATOM	628	CA	PHE	B	147	92.855	41.832	-13.923	1.00	20.00	6
	ATOM	629	CB	PHE	B	147	93.823	42.044	-15.092	1.00	20.00	6
	ATOM	630	CG	PHE	B	147	94.027	40.809	-15.945	1.00	20.00	6
	ATOM	631	CD1	PHE	B	147	93.049	40.397	-16.850	1.00	20.00	6
15	ATOM	632	CD2	PHE	B	147	95.188	40.047	-15.822	1.00	20.00	6
	ATOM	633	CE1	PHE	B	147	93.221	39.247	-17.617	1.00	20.00	6
	ATOM	634	CE2	PHE	B	147	95.372	38.893	-16.585	1.00	20.00	6
	ATOM	635	CZ	PHE	B	147	94.388	38.490	-17.485	1.00	20.00	6
	ATOM	636	C	PHE	B	147	91.473	41.566	-14.480	1.00	20.00	6
20	ATOM	637	O	PHE	B	147	90.972	40.442	-14.423	1.00	20.00	8
	ATOM	638	N	THR	B	148	90.865	42.616	-15.021	1.00	20.00	7
	ATOM	639	CA	THR	B	148	89.560	42.509	-15.643	1.00	20.00	6
	ATOM	640	CB	THR	B	148	88.402	42.889	-14.678	1.00	20.00	6
	ATOM	641	OG1	THR	B	148	88.492	44.275	-14.338	1.00	20.00	8
25	ATOM	642	CG2	THR	B	148	88.460	42.057	-13.403	1.00	20.00	6
	ATOM	643	C	THR	B	148	89.532	43.469	-16.821	1.00	20.00	6
	ATOM	644	O	THR	B	148	90.281	44.448	-16.866	1.00	20.00	8
	ATOM	645	N	PHE	B	149	88.685	43.161	-17.791	1.00	20.00	7
	ATOM	646	CA	PHE	B	149	88.508	44.011	-18.948	1.00	20.00	6
30	ATOM	647	CB	PHE	B	149	89.750	44.013	-19.864	1.00	20.00	6
	ATOM	648	CG	PHE	B	149	90.133	42.664	-20.419	1.00	20.00	6
	ATOM	649	CD1	PHE	B	149	89.552	42.182	-21.587	1.00	20.00	6
	ATOM	650	CD2	PHE	B	149	91.122	41.903	-19.802	1.00	20.00	6
	ATOM	651	CE1	PHE	B	149	89.953	40.965	-22.142	1.00	20.00	6
35	ATOM	652	CE2	PHE	B	149	91.532	40.681	-20.345	1.00	20.00	6
	ATOM	653	CZ	PHE	B	149	90.948	40.213	-21.517	1.00	20.00	6
	ATOM	654	C	PHE	B	149	87.271	43.498	-19.649	1.00	20.00	6
	ATOM	655	O	PHE	B	149	86.714	42.474	-19.251	1.00	20.00	8
	ATOM	656	N	GLN	B	150	86.812	44.221	-20.657	1.00	20.00	7
40	ATOM	657	CA	GLN	B	150	85.619	43.807	-21.372	1.00	20.00	6
	ATOM	658	CB	GLN	B	150	84.358	44.260	-20.614	1.00	20.00	6
	ATOM	659	CG	GLN	B	150	84.302	45.761	-20.289	1.00	20.00	6
	ATOM	660	CD	GLN	B	150	83.011	46.172	-19.567	1.00	20.00	6
	ATOM	661	OE1	GLN	B	150	81.970	46.385	-20.196	1.00	20.00	8
45	ATOM	662	NE2	GLN	B	150	83.078	46.273	-18.240	1.00	20.00	7
	ATOM	663	C	GLN	B	150	85.598	44.400	-22.760	1.00	20.00	6
	ATOM	664	O	GLN	B	150	86.281	45.387	-23.033	1.00	20.00	8
	ATOM	665	N	ASP	B	151	84.846	43.766	-23.649	1.00	20.00	7
	ATOM	666	CA	ASP	B	151	84.683	44.296	-24.992	1.00	20.00	6
50	ATOM	667	CB	ASP	B	151	85.160	43.312	-26.074	1.00	20.00	6
	ATOM	668	CG	ASP	B	151	84.558	41.934	-25.939	1.00	20.00	6
	ATOM	669	OD1	ASP	B	151	83.425	41.812	-25.436	1.00	20.00	8
	ATOM	670	OD2	ASP	B	151	85.227	40.963	-26.365	1.00	20.00	8
	ATOM	671	C	ASP	B	151	83.188	44.573	-25.095	1.00	20.00	6
55	ATOM	672	O	ASP	B	151	82.501	44.610	-24.069	1.00	20.00	8
	ATOM	673	N	ASP	B	152	82.669	44.758	-26.301	1.00	20.00	7
	ATOM	674	CA	ASP	B	152	81.251	45.062	-26.437	1.00	20.00	6
	ATOM	675	CB	ASP	B	152	80.907	45.346	-27.901	1.00	20.00	6
	ATOM	676	CG	ASP	B	152	81.616	46.574	-28.432	1.00	20.00	6

ATOM	677	OD1	ASP	B	152	81.748	47.555	-27.666	1.00	20.00	8
ATOM	678	OD2	ASP	B	152	82.030	46.563	-29.613	1.00	20.00	8
ATOM	679	C	ASP	B	152	80.285	44.020	-25.888	1.00	20.00	6
ATOM	680	O	ASP	B	152	79.229	44.367	-25.357	1.00	20.00	8
ATOM	681	N	GLU	B	153	80.641	42.747	-25.982	1.00	20.00	7
ATOM	682	CA	GLU	B	153	79.727	41.711	-25.521	1.00	20.00	6
ATOM	683	CB	GLU	B	153	79.516	40.685	-26.641	1.00	20.00	6
ATOM	684	CG	GLU	B	153	79.577	41.260	-28.058	1.00	20.00	6
ATOM	685	CD	GLU	B	153	81.006	41.472	-28.550	1.00	20.00	6
ATOM	686	OE1	GLU	B	153	81.765	40.480	-28.635	1.00	20.00	8
ATOM	687	OE2	GLU	B	153	81.374	42.627	-28.854	1.00	20.00	8
ATOM	688	C	GLU	B	153	80.102	40.960	-24.247	1.00	20.00	6
ATOM	689	O	GLU	B	153	79.222	40.473	-23.535	1.00	20.00	8
ATOM	690	N	LYS	B	154	81.393	40.869	-23.944	1.00	20.00	7
ATOM	691	CA	LYS	B	154	81.818	40.091	-22.787	1.00	20.00	6
ATOM	692	CB	LYS	B	154	82.549	38.830	-23.273	1.00	20.00	6
ATOM	693	CG	LYS	B	154	81.785	37.978	-24.278	1.00	20.00	6
ATOM	694	CD	LYS	B	154	82.727	37.028	-25.021	1.00	20.00	6
ATOM	695	CE	LYS	B	154	81.968	36.086	-25.952	1.00	20.00	6
ATOM	696	NZ	LYS	B	154	82.894	35.300	-26.826	1.00	20.00	7
ATOM	697	C	LYS	B	154	82.709	40.767	-21.756	1.00	20.00	6
ATOM	698	O	LYS	B	154	83.412	41.740	-22.048	1.00	20.00	8
ATOM	699	N	LEU	B	155	82.677	40.202	-20.551	1.00	20.00	7
ATOM	700	CA	LEU	B	155	83.501	40.638	-19.428	1.00	20.00	6
ATOM	701	CB	LEU	B	155	82.700	40.651	-18.127	1.00	20.00	6
ATOM	702	CG	LEU	B	155	81.451	41.521	-18.004	1.00	20.00	6
ATOM	703	CD1	LEU	B	155	80.805	41.273	-16.645	1.00	20.00	6
ATOM	704	CD2	LEU	B	155	81.831	42.983	-18.152	1.00	20.00	6
ATOM	705	C	LEU	B	155	84.578	39.559	-19.302	1.00	20.00	6
ATOM	706	O	LEU	B	155	84.288	38.379	-19.495	1.00	20.00	8
ATOM	707	N	TYR	B	156	85.802	39.956	-18.966	1.00	20.00	7
ATOM	708	CA	TYR	B	156	86.893	38.998	-18.809	1.00	20.00	6
ATOM	709	CB	TYR	B	156	87.953	39.189	-19.904	1.00	20.00	6
ATOM	710	CG	TYR	B	156	87.450	39.053	-21.324	1.00	20.00	6
ATOM	711	CD1	TYR	B	156	86.688	40.061	-21.920	1.00	20.00	6
ATOM	712	CE1	TYR	B	156	86.233	39.938	-23.235	1.00	20.00	6
ATOM	713	CD2	TYR	B	156	87.741	37.917	-22.077	1.00	20.00	6
ATOM	714	CE2	TYR	B	156	87.288	37.782	-23.387	1.00	20.00	6
ATOM	715	CZ	TYR	B	156	86.538	38.794	-23.958	1.00	20.00	6
ATOM	716	OH	TYR	B	156	86.087	38.656	-25.246	1.00	20.00	8
ATOM	717	C	TYR	B	156	87.566	39.182	-17.447	1.00	20.00	6
ATOM	718	O	TYR	B	156	87.977	40.291	-17.110	1.00	20.00	8
ATOM	719	N	PHE	B	157	87.657	38.104	-16.667	1.00	20.00	7
ATOM	720	CA	PHE	B	157	88.325	38.152	-15.367	1.00	20.00	6
ATOM	721	CB	PHE	B	157	87.448	37.575	-14.246	1.00	20.00	6
ATOM	722	CG	PHE	B	157	86.194	38.360	-13.968	1.00	20.00	6
ATOM	723	CD1	PHE	B	157	85.986	39.614	-14.535	1.00	20.00	6
ATOM	724	CD2	PHE	B	157	85.206	37.828	-13.143	1.00	20.00	6
ATOM	725	CE1	PHE	B	157	84.808	40.324	-14.290	1.00	20.00	6
ATOM	726	CE2	PHE	B	157	84.025	38.532	-12.893	1.00	20.00	6
ATOM	727	CZ	PHE	B	157	83.829	39.782	-13.470	1.00	20.00	6
ATOM	728	C	PHE	B	157	89.579	37.295	-15.471	1.00	20.00	6
ATOM	729	O	PHE	B	157	89.492	36.105	-15.765	1.00	20.00	8
ATOM	730	N	GLY	B	158	90.742	37.893	-15.231	1.00	20.00	7
ATOM	731	CA	GLY	B	158	91.985	37.146	-15.303	1.00	20.00	6
ATOM	732	C	GLY	B	158	92.254	36.512	-13.955	1.00	20.00	6
ATOM	733	O	GLY	B	158	92.575	37.211	-12.996	1.00	20.00	8
ATOM	734	N	LEU	B	159	92.137	35.191	-13.886	1.00	20.00	7
ATOM	735	CA	LEU	B	159	92.330	34.466	-12.634	1.00	20.00	6

	ATOM	736	CB	LEU	B	159	91.116	33.580	-12.358	1.00	20.00	6
	ATOM	737	CG	LEU	B	159	89.724	34.208	-12.490	1.00	20.00	6
	ATOM	738	CD1	LEU	B	159	88.670	33.111	-12.398	1.00	20.00	6
	ATOM	739	CD2	LEU	B	159	89.513	35.246	-11.404	1.00	20.00	6
5	ATOM	740	C	LEU	B	159	93.562	33.582	-12.643	1.00	20.00	6
	ATOM	741	O	LEU	B	159	94.061	33.204	-13.698	1.00	20.00	8
	ATOM	742	N	SER	B	160	94.046	33.237	-11.457	1.00	20.00	7
	ATOM	743	CA	SER	B	160	95.192	32.356	-11.377	1.00	20.00	6
	ATOM	744	CB	SER	B	160	95.665	32.206	-9.926	1.00	20.00	6
10	ATOM	745	OG	SER	B	160	94.591	31.973	-9.042	1.00	20.00	8
	ATOM	746	C	SER	B	160	94.754	31.012	-11.951	1.00	20.00	6
	ATOM	747	O	SER	B	160	93.598	30.605	-11.813	1.00	20.00	8
	ATOM	748	N	TYR	B	161	95.674	30.339	-12.625	1.00	20.00	7
	ATOM	749	CA	TYR	B	161	95.381	29.050	-13.231	1.00	20.00	6
15	ATOM	750	CB	TYR	B	161	96.170	28.924	-14.543	1.00	20.00	6
	ATOM	751	CG	TYR	B	161	96.128	27.564	-15.209	1.00	20.00	6
	ATOM	752	CD1	TYR	B	161	94.968	26.787	-15.193	1.00	20.00	6
	ATOM	753	CE1	TYR	B	161	94.915	25.554	-15.846	1.00	20.00	6
	ATOM	754	CD2	TYR	B	161	97.240	27.073	-15.895	1.00	20.00	6
20	ATOM	755	CE2	TYR	B	161	97.198	25.841	-16.553	1.00	20.00	6
	ATOM	756	CZ	TYR	B	161	96.033	25.088	-16.523	1.00	20.00	6
	ATOM	757	OH	TYR	B	161	95.983	23.877	-17.173	1.00	20.00	8
	ATOM	758	C	TYR	B	161	95.724	27.905	-12.277	1.00	20.00	6
	ATOM	759	O	TYR	B	161	96.897	27.598	-12.065	1.00	20.00	8
25	ATOM	760	N	ALA	B	162	94.696	27.288	-11.697	1.00	20.00	7
	ATOM	761	CA	ALA	B	162	94.893	26.166	-10.776	1.00	20.00	6
	ATOM	762	CB	ALA	B	162	93.666	25.995	-9.873	1.00	20.00	6
	ATOM	763	C	ALA	B	162	95.100	24.924	-11.637	1.00	20.00	6
	ATOM	764	O	ALA	B	162	94.146	24.251	-12.015	1.00	20.00	8
30	ATOM	765	N	LYS	B	163	96.361	24.626	-11.930	1.00	20.00	7
	ATOM	766	CA	LYS	B	163	96.722	23.506	-12.795	1.00	20.00	6
	ATOM	767	CB	LYS	B	163	98.247	23.416	-12.912	1.00	20.00	6
	ATOM	768	CG	LYS	B	163	98.904	24.711	-13.360	1.00	20.00	6
	ATOM	769	CD	LYS	B	163	100.405	24.539	-13.554	1.00	20.00	6
35	ATOM	770	CE	LYS	B	163	101.102	25.885	-13.690	1.00	20.00	6
	ATOM	771	NZ	LYS	B	163	100.976	26.701	-12.445	1.00	20.00	7
	ATOM	772	C	LYS	B	163	96.170	22.123	-12.464	1.00	20.00	6
	ATOM	773	O	LYS	B	163	95.823	21.370	-13.369	1.00	20.00	8
	ATOM	774	N	ASN	B	164	96.076	21.775	-11.186	1.00	20.00	7
40	ATOM	775	CA	ASN	B	164	95.594	20.449	-10.842	1.00	20.00	6
	ATOM	776	CB	ASN	B	164	96.339	19.944	-9.610	1.00	20.00	6
	ATOM	777	CG	ASN	B	164	97.766	19.529	-9.943	1.00	20.00	6
	ATOM	778	OD1	ASN	B	164	97.992	18.776	-10.892	1.00	20.00	8
	ATOM	779	ND2	ASN	B	164	98.730	20.014	-9.171	1.00	20.00	7
45	ATOM	780	C	ASN	B	164	94.084	20.246	-10.706	1.00	20.00	6
	ATOM	781	O	ASN	B	164	93.630	19.183	-10.286	1.00	20.00	8
	ATOM	782	N	GLY	B	165	93.309	21.257	-11.080	1.00	20.00	7
	ATOM	783	CA	GLY	B	165	91.863	21.127	-11.039	1.00	20.00	6
	ATOM	784	C	GLY	B	165	91.159	21.088	-9.694	1.00	20.00	6
50	ATOM	785	O	GLY	B	165	91.663	21.598	-8.698	1.00	20.00	8
	ATOM	786	N	GLU	B	166	89.986	20.461	-9.689	1.00	20.00	7
	ATOM	787	CA	GLU	B	166	89.126	20.344	-8.513	1.00	20.00	6
	ATOM	788	CB	GLU	B	166	87.683	20.079	-8.962	1.00	20.00	6
	ATOM	789	CG	GLU	B	166	86.992	21.255	-9.646	1.00	20.00	6
55	ATOM	790	CD	GLU	B	166	85.709	20.837	-10.358	1.00	20.00	6
	ATOM	791	OE1	GLU	B	166	85.137	19.794	-9.986	1.00	20.00	8
	ATOM	792	OE2	GLU	B	166	85.263	21.556	-11.279	1.00	20.00	8
	ATOM	793	C	GLU	B	166	89.520	19.270	-7.506	1.00	20.00	6
	ATOM	794	O	GLU	B	166	89.952	18.184	-7.874	1.00	20.00	8

	ATOM	795	N	LEU	B	167	89.344	19.579	-6.226	1.00	20.00	7
	ATOM	796	CA	LEU	B	167	89.651	18.626	-5.168	1.00	20.00	6
	ATOM	797	CB	LEU	B	167	89.395	19.269	-3.802	1.00	20.00	6
	ATOM	798	CG	LEU	B	167	89.408	18.363	-2.569	1.00	20.00	6
5	ATOM	799	CD1	LEU	B	167	90.769	17.703	-2.412	1.00	20.00	6
	ATOM	800	CD2	LEU	B	167	89.065	19.193	-1.338	1.00	20.00	6
	ATOM	801	C	LEU	B	167	88.757	17.394	-5.346	1.00	20.00	6
	ATOM	802	O	LEU	B	167	89.124	16.283	-4.968	1.00	20.00	8
	ATOM	803	N	LEU	B	168	87.580	17.600	-5.927	1.00	20.00	7
10	ATOM	804	CA	LEU	B	168	86.647	16.500	-6.153	1.00	20.00	6
	ATOM	805	CB	LEU	B	168	85.364	17.014	-6.809	1.00	20.00	6
	ATOM	806	CG	LEU	B	168	84.292	15.977	-7.168	1.00	20.00	6
	ATOM	807	CD1	LEU	B	168	83.883	15.186	-5.929	1.00	20.00	6
	ATOM	808	CD2	LEU	B	168	83.083	16.687	-7.756	1.00	20.00	6
15	ATOM	809	C	LEU	B	168	87.290	15.440	-7.046	1.00	20.00	6
	ATOM	810	O	LEU	B	168	87.091	14.243	-6.845	1.00	20.00	8
	ATOM	811	N	LYS	B	169	88.068	15.888	-8.027	1.00	20.00	7
	ATOM	812	CA	LYS	B	169	88.727	14.967	-8.941	1.00	20.00	6
	ATOM	813	CB	LYS	B	169	89.610	15.729	-9.930	1.00	20.00	6
20	ATOM	814	CG	LYS	B	169	90.379	14.818	-10.882	1.00	20.00	6
	ATOM	815	CD	LYS	B	169	91.226	15.603	-11.877	1.00	20.00	6
	ATOM	816	CE	LYS	B	169	92.373	16.328	-11.192	1.00	20.00	6
	ATOM	817	NZ	LYS	B	169	93.253	17.021	-12.173	1.00	20.00	7
	ATOM	818	C	LYS	B	169	89.574	13.949	-8.193	1.00	20.00	6
25	ATOM	819	O	LYS	B	169	89.543	12.758	-8.504	1.00	20.00	8
	ATOM	820	N	TYR	B	170	90.334	14.417	-7.207	1.00	20.00	7
	ATOM	821	CA	TYR	B	170	91.197	13.527	-6.441	1.00	20.00	6
	ATOM	822	CB	TYR	B	170	92.243	14.346	-5.682	1.00	20.00	6
	ATOM	823	CG	TYR	B	170	93.217	15.010	-6.624	1.00	20.00	6
30	ATOM	824	CD1	TYR	B	170	94.347	14.331	-7.085	1.00	20.00	6
	ATOM	825	CE1	TYR	B	170	95.195	14.900	-8.036	1.00	20.00	6
	ATOM	826	CD2	TYR	B	170	92.963	16.282	-7.133	1.00	20.00	6
	ATOM	827	CE2	TYR	B	170	93.801	16.861	-8.083	1.00	20.00	6
	ATOM	828	CZ	TYR	B	170	94.913	16.164	-8.532	1.00	20.00	6
35	ATOM	829	OH	TYR	B	170	95.727	16.727	-9.493	1.00	20.00	8
	ATOM	830	C	TYR	B	170	90.419	12.622	-5.499	1.00	20.00	6
	ATOM	831	O	TYR	B	170	90.834	11.494	-5.233	1.00	20.00	8
	ATOM	832	N	ILE	B	171	89.287	13.098	-4.993	1.00	20.00	7
	ATOM	833	CA	ILE	B	171	88.488	12.262	-4.112	1.00	20.00	6
40	ATOM	834	CB	ILE	B	171	87.278	13.028	-3.538	1.00	20.00	6
	ATOM	835	CG2	ILE	B	171	86.367	12.065	-2.791	1.00	20.00	6
	ATOM	836	CG1	ILE	B	171	87.764	14.141	-2.603	1.00	20.00	6
	ATOM	837	CD1	ILE	B	171	86.652	14.990	-2.019	1.00	20.00	6
	ATOM	838	C	ILE	B	171	87.994	11.066	-4.931	1.00	20.00	6
45	ATOM	839	O	ILE	B	171	88.030	9.925	-4.468	1.00	20.00	8
	ATOM	840	N	ARG	B	172	87.550	11.331	-6.156	1.00	20.00	7
	ATOM	841	CA	ARG	B	172	87.061	10.273	-7.031	1.00	20.00	6
	ATOM	842	CB	ARG	B	172	86.359	10.861	-8.259	1.00	20.00	6
	ATOM	843	CG	ARG	B	172	85.094	11.658	-7.963	1.00	20.00	6
50	ATOM	844	CD	ARG	B	172	84.352	11.981	-9.259	1.00	20.00	6
	ATOM	845	NE	ARG	B	172	83.187	12.843	-9.063	1.00	20.00	7
	ATOM	846	CZ	ARG	B	172	82.192	12.589	-8.217	1.00	20.00	6
	ATOM	847	NH1	ARG	B	172	82.209	11.491	-7.469	1.00	20.00	7
	ATOM	848	NH2	ARG	B	172	81.168	13.428	-8.127	1.00	20.00	7
55	ATOM	849	C	ARG	B	172	88.202	9.378	-7.497	1.00	20.00	6
	ATOM	850	O	ARG	B	172	88.050	8.160	-7.587	1.00	20.00	8
	ATOM	851	N	LYS	B	173	89.348	9.985	-7.783	1.00	20.00	7
	ATOM	852	CA	LYS	B	173	90.509	9.244	-8.256	1.00	20.00	6
	ATOM	853	CB	LYS	B	173	91.647	10.206	-8.603	1.00	20.00	6

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     ATOM   854  CG   LYS B 173      92.930    9.511   -9.045  1.00 20.00       6
     ATOM   855  CD   LYS B 173      94.081   10.496   -9.222  1.00 20.00       6
     ATOM   856  CE   LYS B 173      93.862   11.432  -10.406  1.00 20.00       6
     ATOM   857  NZ   LYS B 173      93.858   10.711  -11.715  1.00 20.00       7
  5  ATOM   858  C    LYS B 173      91.025    8.191   -7.280  1.00 20.00       6
     ATOM   859  O    LYS B 173      91.274    7.055   -7.674  1.00 20.00       8
     ATOM   860  N    ILE B 174      91.192    8.554   -6.012  1.00 20.00       7
     ATOM   861  CA   ILE B 174      91.710    7.593   -5.042  1.00 20.00       6
     ATOM   862  CB   ILE B 174      92.884    8.191   -4.223  1.00 20.00       6
 10  ATOM   863  CG2  ILE B 174      93.970    8.701   -5.166  1.00 20.00       6
     ATOM   864  CG1  ILE B 174      92.394    9.337   -3.343  1.00 20.00       6
     ATOM   865  CD1  ILE B 174      93.480    9.916   -2.457  1.00 20.00       6
     ATOM   866  C    ILE B 174      90.674    7.030   -4.074  1.00 20.00       6
     ATOM   867  O    ILE B 174      91.025    6.296   -3.151  1.00 20.00       8
 15  ATOM   868  N    GLY B 175      89.405    7.367   -4.283  1.00 20.00       7
     ATOM   869  CA   GLY B 175      88.359    6.855   -3.413  1.00 20.00       6
     ATOM   870  C    GLY B 175      88.160    7.650   -2.138  1.00 20.00       6
     ATOM   871  O    GLY B 175      87.083    8.198   -1.905  1.00 20.00       8
     ATOM   872  N    SER B 176      89.192    7.701   -1.304  1.00 20.00       7
 20  ATOM   873  CA   SER B 176      89.140    8.447   -0.053  1.00 20.00       6
     ATOM   874  CB   SER B 176      88.395    7.653    1.026  1.00 20.00       6
     ATOM   875  OG   SER B 176      89.150    6.543    1.472  1.00 20.00       8
     ATOM   876  C    SER B 176      90.565    8.742    0.401  1.00 20.00       6
     ATOM   877  O    SER B 176      91.506    8.049    0.009  1.00 20.00       8
 25  ATOM   878  N    PHE B 177      90.718    9.769    1.228  1.00 20.00       7
     ATOM   879  CA   PHE B 177      92.029   10.184    1.722  1.00 20.00       6
     ATOM   880  CB   PHE B 177      92.028   11.694    1.990  1.00 20.00       6
     ATOM   881  CG   PHE B 177      92.002   12.546    0.747  1.00 20.00       6
     ATOM   882  CD1  PHE B 177      91.484   12.060   -0.449  1.00 20.00       6
 30  ATOM   883  CD2  PHE B 177      92.481   13.855    0.787  1.00 20.00       6
     ATOM   884  CE1  PHE B 177      91.443   12.860   -1.585  1.00 20.00       6
     ATOM   885  CE2  PHE B 177      92.444   14.665   -0.343  1.00 20.00       6
     ATOM   886  CZ   PHE B 177      91.925   14.168   -1.532  1.00 20.00       6
     ATOM   887  C    PHE B 177      92.427    9.475    3.009  1.00 20.00       6
 35  ATOM   888  O    PHE B 177      91.582    9.223    3.872  1.00 20.00       8
     ATOM   889  N    ASP B 178      93.711    9.152    3.147  1.00 20.00       7
     ATOM   890  CA   ASP B 178      94.155    8.529    4.385  1.00 20.00       6
     ATOM   891  CB   ASP B 178      95.581    7.972    4.267  1.00 20.00       6
     ATOM   892  CG   ASP B 178      96.594    9.018    3.845  1.00 20.00       6
 40  ATOM   893  OD1  ASP B 178      96.392   10.214    4.139  1.00 20.00       8
     ATOM   894  OD2  ASP B 178      97.612    8.634    3.230  1.00 20.00       8
     ATOM   895  C    ASP B 178      94.092    9.640    5.436  1.00 20.00       6
     ATOM   896  O    ASP B 178      93.736   10.778    5.117  1.00 20.00       8
     ATOM   897  N    GLU B 179      94.443    9.324    6.677  1.00 20.00       7
 45  ATOM   898  CA   GLU B 179      94.380   10.311    7.744  1.00 20.00       6
     ATOM   899  CB   GLU B 179      94.623    9.637    9.096  1.00 20.00       6
     ATOM   900  CG   GLU B 179      94.747   10.611   10.255  1.00 20.00       6
     ATOM   901  CD   GLU B 179      94.331    9.994   11.574  1.00 20.00       6
     ATOM   902  OE1  GLU B 179      94.589    8.789   11.770  1.00 20.00       8
 50  ATOM   903  OE2  GLU B 179      93.753   10.717   12.416  1.00 20.00       8
     ATOM   904  C    GLU B 179      95.320   11.501    7.575  1.00 20.00       6
     ATOM   905  O    GLU B 179      94.948   12.636    7.881  1.00 20.00       8
     ATOM   906  N    THR B 180      96.528   11.246    7.086  1.00 20.00       7
     ATOM   907  CA   THR B 180      97.509   12.308    6.886  1.00 20.00       6
 55  ATOM   908  CB   THR B 180      98.866   11.720    6.445  1.00 20.00       6
     ATOM   909  OG1  THR B 180      99.349   10.842    7.466  1.00 20.00       8
     ATOM   910  CG2  THR B 180      99.888   12.825    6.213  1.00 20.00       6
     ATOM   911  C    THR B 180      97.040   13.331    5.849  1.00 20.00       6
     ATOM   912  O    THR B 180      97.136   14.542    6.069  1.00 20.00       8
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	ATOM	913	N	CYS	B	181	96.534	12.845	4.721	1.00	20.00	7
	ATOM	914	CA	CYS	B	181	96.057	13.733	3.666	1.00	20.00	6
	ATOM	915	CB	CYS	B	181	95.836	12.945	2.375	1.00	20.00	6
	ATOM	916	SG	CYS	B	181	97.372	12.255	1.685	1.00	20.00	16
5	ATOM	917	C	CYS	B	181	94.775	14.449	4.079	1.00	20.00	6
	ATOM	918	O	CYS	B	181	94.570	15.615	3.733	1.00	20.00	8
	ATOM	919	N	THR	B	182	93.914	13.755	4.820	1.00	20.00	7
	ATOM	920	CA	THR	B	182	92.669	14.356	5.286	1.00	20.00	6
	ATOM	921	CB	THR	B	182	91.812	13.354	6.103	1.00	20.00	6
10	ATOM	922	OG1	THR	B	182	91.372	12.283	5.259	1.00	20.00	8
	ATOM	923	CG2	THR	B	182	90.600	14.054	6.690	1.00	20.00	6
	ATOM	924	C	THR	B	182	93.014	15.535	6.196	1.00	20.00	6
	ATOM	925	O	THR	B	182	92.515	16.649	6.019	1.00	20.00	8
	ATOM	926	N	ARG	B	183	93.873	15.273	7.175	1.00	20.00	7
15	ATOM	927	CA	ARG	B	183	94.299	16.293	8.121	1.00	20.00	6
	ATOM	928	CB	ARG	B	183	95.311	15.707	9.109	1.00	20.00	6
	ATOM	929	CG	ARG	B	183	95.957	16.744	10.012	1.00	20.00	6
	ATOM	930	CD	ARG	B	183	96.886	16.116	11.050	1.00	20.00	6
	ATOM	931	NE	ARG	B	183	96.167	15.220	11.949	1.00	20.00	7
20	ATOM	932	CZ	ARG	B	183	96.098	13.900	11.804	1.00	20.00	6
	ATOM	933	NH1	ARG	B	183	96.717	13.306	10.791	1.00	20.00	7
	ATOM	934	NH2	ARG	B	183	95.389	13.176	12.664	1.00	20.00	7
	ATOM	935	C	ARG	B	183	94.923	17.505	7.427	1.00	20.00	6
	ATOM	936	O	ARG	B	183	94.545	18.646	7.698	1.00	20.00	8
25	ATOM	937	N	PHE	B	184	95.877	17.264	6.534	1.00	20.00	7
	ATOM	938	CA	PHE	B	184	96.539	18.367	5.847	1.00	20.00	6
	ATOM	939	CB	PHE	B	184	97.610	17.847	4.889	1.00	20.00	6
	ATOM	940	CG	PHE	B	184	98.387	18.943	4.223	1.00	20.00	6
	ATOM	941	CD1	PHE	B	184	99.451	19.555	4.879	1.00	20.00	6
30	ATOM	942	CD2	PHE	B	184	98.009	19.415	2.975	1.00	20.00	6
	ATOM	943	CE1	PHE	B	184	100.125	20.627	4.301	1.00	20.00	6
	ATOM	944	CE2	PHE	B	184	98.676	20.491	2.388	1.00	20.00	6
	ATOM	945	CZ	PHE	B	184	99.735	21.097	3.053	1.00	20.00	6
	ATOM	946	C	PHE	B	184	95.580	19.267	5.066	1.00	20.00	6
35	ATOM	947	O	PHE	B	184	95.567	20.481	5.255	1.00	20.00	8
	ATOM	948	N	TYR	B	185	94.784	18.679	4.181	1.00	20.00	7
	ATOM	949	CA	TYR	B	185	93.854	19.471	3.390	1.00	20.00	6
	ATOM	950	CB	TYR	B	185	93.305	18.634	2.236	1.00	20.00	6
	ATOM	951	CG	TYR	B	185	94.337	18.504	1.140	1.00	20.00	6
40	ATOM	952	CD1	TYR	B	185	94.611	19.580	0.293	1.00	20.00	6
	ATOM	953	CE1	TYR	B	185	95.637	19.516	-0.643	1.00	20.00	6
	ATOM	954	CD2	TYR	B	185	95.118	17.352	1.017	1.00	20.00	6
	ATOM	955	CE2	TYR	B	185	96.152	17.282	0.081	1.00	20.00	6
	ATOM	956	CZ	TYR	B	185	96.405	18.367	-0.742	1.00	20.00	6
45	ATOM	957	OH	TYR	B	185	97.436	18.314	-1.657	1.00	20.00	8
	ATOM	958	C	TYR	B	185	92.738	20.098	4.208	1.00	20.00	6
	ATOM	959	O	TYR	B	185	92.286	21.195	3.891	1.00	20.00	8
	ATOM	960	N	THR	B	186	92.303	19.422	5.267	1.00	20.00	7
	ATOM	961	CA	THR	B	186	91.265	19.987	6.122	1.00	20.00	6
50	ATOM	962	CB	THR	B	186	90.799	18.996	7.219	1.00	20.00	6
	ATOM	963	OG1	THR	B	186	90.193	17.846	6.606	1.00	20.00	8
	ATOM	964	CG2	THR	B	186	89.774	19.671	8.144	1.00	20.00	6
	ATOM	965	C	THR	B	186	91.858	21.218	6.805	1.00	20.00	6
	ATOM	966	O	THR	B	186	91.188	22.242	6.948	1.00	20.00	8
55	ATOM	967	N	ALA	B	187	93.120	21.115	7.222	1.00	20.00	7
	ATOM	968	CA	ALA	B	187	93.787	22.234	7.882	1.00	20.00	6
	ATOM	969	CB	ALA	B	187	95.184	21.817	8.349	1.00	20.00	6
	ATOM	970	C	ALA	B	187	93.879	23.449	6.946	1.00	20.00	6
	ATOM	971	O	ALA	B	187	93.654	24.585	7.372	1.00	20.00	8

	ATOM	972	N	GLU	B	188	94.205	23.222	5.674	1.00	20.00	7
	ATOM	973	CA	GLU	B	188	94.292	24.343	4.740	1.00	20.00	6
	ATOM	974	CB	GLU	B	188	94.843	23.898	3.376	1.00	20.00	6
	ATOM	975	CG	GLU	B	188	96.285	23.391	3.407	1.00	20.00	6
5	ATOM	976	CD	GLU	B	188	97.030	23.639	2.104	1.00	20.00	6
	ATOM	977	OE1	GLU	B	188	96.407	23.537	1.024	1.00	20.00	8
	ATOM	978	OE2	GLU	B	188	98.247	23.932	2.156	1.00	20.00	8
	ATOM	979	C	GLU	B	188	92.912	24.977	4.561	1.00	20.00	6
	ATOM	980	O	GLU	B	188	92.782	26.196	4.533	1.00	20.00	8
10	ATOM	981	N	ILE	B	189	91.875	24.152	4.451	1.00	20.00	7
	ATOM	982	CA	ILE	B	189	90.530	24.693	4.284	1.00	20.00	6
	ATOM	983	CB	ILE	B	189	89.495	23.566	4.064	1.00	20.00	6
	ATOM	984	CG2	ILE	B	189	88.094	24.157	3.947	1.00	20.00	6
	ATOM	985	CG1	ILE	B	189	89.855	22.773	2.796	1.00	20.00	6
15	ATOM	986	CD1	ILE	B	189	89.058	21.488	2.616	1.00	20.00	6
	ATOM	987	C	ILE	B	189	90.152	25.517	5.519	1.00	20.00	6
	ATOM	988	O	ILE	B	189	89.634	26.630	5.396	1.00	20.00	8
	ATOM	989	N	VAL	B	190	90.412	24.971	6.707	1.00	20.00	7
	ATOM	990	CA	VAL	B	190	90.116	25.674	7.957	1.00	20.00	6
20	ATOM	991	CB	VAL	B	190	90.557	24.842	9.186	1.00	20.00	6
	ATOM	992	CG1	VAL	B	190	90.540	25.717	10.451	1.00	20.00	6
	ATOM	993	CG2	VAL	B	190	89.643	23.641	9.358	1.00	20.00	6
	ATOM	994	C	VAL	B	190	90.865	27.012	7.984	1.00	20.00	6
	ATOM	995	O	VAL	B	190	90.311	28.039	8.375	1.00	20.00	8
25	ATOM	996	N	SER	B	191	92.125	26.997	7.557	1.00	20.00	7
	ATOM	997	CA	SER	B	191	92.934	28.218	7.546	1.00	20.00	6
	ATOM	998	CB	SER	B	191	94.378	27.888	7.166	1.00	20.00	6
	ATOM	999	OG	SER	B	191	95.220	29.007	7.363	1.00	20.00	8
	ATOM	1000	C	SER	B	191	92.361	29.240	6.566	1.00	20.00	6
30	ATOM	1001	O	SER	B	191	92.351	30.444	6.838	1.00	20.00	8
	ATOM	1002	N	ALA	B	192	91.882	28.754	5.425	1.00	20.00	7
	ATOM	1003	CA	ALA	B	192	91.306	29.634	4.417	1.00	20.00	6
	ATOM	1004	CB	ALA	B	192	91.006	28.850	3.141	1.00	20.00	6
	ATOM	1005	C	ALA	B	192	90.029	30.256	4.970	1.00	20.00	6
35	ATOM	1006	O	ALA	B	192	89.799	31.458	4.822	1.00	20.00	8
	ATOM	1007	N	LEU	B	193	89.203	29.439	5.621	1.00	20.00	7
	ATOM	1008	CA	LEU	B	193	87.957	29.941	6.192	1.00	20.00	6
	ATOM	1009	CB	LEU	B	193	87.101	28.783	6.725	1.00	20.00	6
	ATOM	1010	CG	LEU	B	193	86.447	27.898	5.650	1.00	20.00	6
40	ATOM	1011	CD1	LEU	B	193	85.645	26.771	6.315	1.00	20.00	6
	ATOM	1012	CD2	LEU	B	193	85.530	28.752	4.780	1.00	20.00	6
	ATOM	1013	C	LEU	B	193	88.215	30.959	7.299	1.00	20.00	6
	ATOM	1014	O	LEU	B	193	87.474	31.935	7.435	1.00	20.00	8
	ATOM	1015	N	GLU	B	194	89.254	30.738	8.100	1.00	20.00	7
45	ATOM	1016	CA	GLU	B	194	89.562	31.699	9.157	1.00	20.00	6
	ATOM	1017	CB	GLU	B	194	90.773	31.257	9.982	1.00	20.00	6
	ATOM	1018	CG	GLU	B	194	91.288	32.353	10.914	1.00	20.00	6
	ATOM	1019	CD	GLU	B	194	92.381	31.878	11.855	1.00	20.00	6
	ATOM	1020	OE1	GLU	B	194	93.246	31.090	11.420	1.00	20.00	8
50	ATOM	1021	OE2	GLU	B	194	92.376	32.312	13.031	1.00	20.00	8
	ATOM	1022	C	GLU	B	194	89.847	33.053	8.511	1.00	20.00	6
	ATOM	1023	O	GLU	B	194	89.375	34.083	8.972	1.00	20.00	8
	ATOM	1024	N	TYR	B	195	90.608	33.046	7.426	1.00	20.00	7
	ATOM	1025	CA	TYR	B	195	90.928	34.294	6.743	1.00	20.00	6
55	ATOM	1026	CB	TYR	B	195	91.919	34.043	5.613	1.00	20.00	6
	ATOM	1027	CG	TYR	B	195	92.193	35.271	4.774	1.00	20.00	6
	ATOM	1028	CD1	TYR	B	195	93.098	36.244	5.202	1.00	20.00	6
	ATOM	1029	CE1	TYR	B	195	93.356	37.382	4.429	1.00	20.00	6
	ATOM	1030	CD2	TYR	B	195	91.545	35.461	3.553	1.00	20.00	6

	ATOM	1031	CE2	TYR	B	195	91.794	36.591	2.775	1.00 20.00	6
	ATOM	1032	CZ	TYR	B	195	92.701	37.545	3.219	1.00 20.00	6
	ATOM	1033	OH	TYR	B	195	92.956	38.656	2.450	1.00 20.00	8
	ATOM	1034	C	TYR	B	195	89.668	34.923	6.160	1.00 20.00	6
5	ATOM	1035	O	TYR	B	195	89.409	36.117	6.328	1.00 20.00	8
	ATOM	1036	N	LEU	B	196	88.885	34.103	5.472	1.00 20.00	7
	ATOM	1037	CA	LEU	B	196	87.664	34.576	4.845	1.00 20.00	6
	ATOM	1038	CB	LEU	B	196	86.972	33.426	4.107	1.00 20.00	6
	ATOM	1039	CG	LEU	B	196	85.933	33.824	3.060	1.00 20.00	6
10	ATOM	1040	CD1	LEU	B	196	86.602	34.659	1.966	1.00 20.00	6
	ATOM	1041	CD2	LEU	B	196	85.305	32.568	2.463	1.00 20.00	6
	ATOM	1042	C	LEU	B	196	86.731	35.161	5.888	1.00 20.00	6
	ATOM	1043	O	LEU	B	196	86.299	36.308	5.774	1.00 20.00	8
	ATOM	1044	N	HIS	B	197	86.431	34.378	6.917	1.00 20.00	7
15	ATOM	1045	CA	HIS	B	197	85.533	34.840	7.967	1.00 20.00	6
	ATOM	1046	CB	HIS	B	197	85.241	33.697	8.942	1.00 20.00	6
	ATOM	1047	CG	HIS	B	197	84.377	32.622	8.356	1.00 20.00	6
	ATOM	1048	CD2	HIS	B	197	83.734	32.550	7.163	1.00 20.00	6
	ATOM	1049	ND1	HIS	B	197	84.083	31.452	9.022	1.00 20.00	7
20	ATOM	1050	CE1	HIS	B	197	83.296	30.704	8.264	1.00 20.00	6
	ATOM	1051	NE2	HIS	B	197	83.071	31.346	7.132	1.00 20.00	7
	ATOM	1052	C	HIS	B	197	86.080	36.060	8.697	1.00 20.00	6
	ATOM	1053	O	HIS	B	197	85.314	36.919	9.146	1.00 20.00	8
	ATOM	1054	N	GLY	B	198	87.404	36.143	8.804	1.00 20.00	7
25	ATOM	1055	CA	GLY	B	198	88.009	37.285	9.464	1.00 20.00	6
	ATOM	1056	C	GLY	B	198	87.687	38.580	8.737	1.00 20.00	6
	ATOM	1057	O	GLY	B	198	87.784	39.661	9.311	1.00 20.00	8
	ATOM	1058	N	LYS	B	199	87.308	38.475	7.466	1.00 20.00	7
	ATOM	1059	CA	LYS	B	199	86.959	39.652	6.674	1.00 20.00	6
30	ATOM	1060	CB	LYS	B	199	87.577	39.573	5.279	1.00 20.00	6
	ATOM	1061	CG	LYS	B	199	89.082	39.736	5.258	1.00 20.00	6
	ATOM	1062	CD	LYS	B	199	89.574	39.919	3.833	1.00 20.00	6
	ATOM	1063	CE	LYS	B	199	91.054	40.243	3.807	1.00 20.00	6
	ATOM	1064	NZ	LYS	B	199	91.398	41.382	4.706	1.00 20.00	7
35	ATOM	1065	C	LYS	B	199	85.451	39.804	6.539	1.00 20.00	6
	ATOM	1066	O	LYS	B	199	84.972	40.556	5.693	1.00 20.00	8
	ATOM	1067	N	GLY	B	200	84.707	39.079	7.368	1.00 20.00	7
	ATOM	1068	CA	GLY	B	200	83.258	39.158	7.328	1.00 20.00	6
	ATOM	1069	C	GLY	B	200	82.646	38.660	6.032	1.00 20.00	6
40	ATOM	1070	O	GLY	B	200	81.644	39.198	5.564	1.00 20.00	8
	ATOM	1071	N	ILE	B	201	83.243	37.630	5.445	1.00 20.00	7
	ATOM	1072	CA	ILE	B	201	82.726	37.075	4.205	1.00 20.00	6
	ATOM	1073	CB	ILE	B	201	83.775	37.140	3.080	1.00 20.00	6
	ATOM	1074	CG2	ILE	B	201	83.257	36.413	1.841	1.00 20.00	6
45	ATOM	1075	CG1	ILE	B	201	84.109	38.599	2.761	1.00 20.00	6
	ATOM	1076	CD1	ILE	B	201	85.330	38.758	1.870	1.00 20.00	6
	ATOM	1077	C	ILE	B	201	82.329	35.623	4.395	1.00 20.00	6
	ATOM	1078	O	ILE	B	201	83.094	34.826	4.942	1.00 20.00	8
	ATOM	1079	N	ILE	B	202	81.125	35.291	3.940	1.00 20.00	7
50	ATOM	1080	CA	ILE	B	202	80.592	33.936	4.016	1.00 20.00	6
	ATOM	1081	CB	ILE	B	202	79.119	33.953	4.481	1.00 20.00	6
	ATOM	1082	CG2	ILE	B	202	78.583	32.522	4.595	1.00 20.00	6
	ATOM	1083	CG1	ILE	B	202	79.008	34.675	5.825	1.00 20.00	6
	ATOM	1084	CD1	ILE	B	202	77.576	34.865	6.294	1.00 20.00	6
55	ATOM	1085	C	ILE	B	202	80.644	33.393	2.589	1.00 20.00	6
	ATOM	1086	O	ILE	B	202	80.182	34.056	1.663	1.00 20.00	8
	ATOM	1087	N	HIS	B	203	81.204	32.204	2.395	1.00 20.00	7
	ATOM	1088	CA	HIS	B	203	81.279	31.652	1.044	1.00 20.00	6
	ATOM	1089	CB	HIS	B	203	82.258	30.480	0.999	1.00 20.00	6

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      ATOM   1090  CG  HIS B 203      82.478  29.942  -0.380  1.00 20.00  6
      ATOM   1091  CD2 HIS B 203      81.646  29.282  -1.220  1.00 20.00  6
      ATOM   1092  ND1 HIS B 203      83.659  30.116  -1.069  1.00 20.00  7
      ATOM   1093  CE1 HIS B 203      83.545  29.588  -2.275  1.00 20.00  6
  5   ATOM   1094  NE2 HIS B 203      82.333  29.076  -2.392  1.00 20.00  7
      ATOM   1095  C   HIS B 203      79.896  31.211   0.530  1.00 20.00  6
      ATOM   1096  O   HIS B 203      79.508  31.546  -0.593  1.00 20.00  8
      ATOM   1097  N   ARG B 204      79.168  30.458   1.357  1.00 20.00  7
      ATOM   1098  CA  ARG B 204      77.819  29.969   1.039  1.00 20.00  6
 10   ATOM   1099  CB  ARG B 204      76.916  31.117   0.583  1.00 20.00  6
      ATOM   1100  CG  ARG B 204      76.601  32.120   1.675  1.00 20.00  6
      ATOM   1101  CD  ARG B 204      75.316  32.878   1.377  1.00 20.00  6
      ATOM   1102  NE  ARG B 204      75.376  33.616   0.119  1.00 20.00  7
      ATOM   1103  CZ  ARG B 204      74.423  34.443  -0.303  1.00 20.00  6
 15   ATOM   1104  NH1 ARG B 204      73.336  34.636   0.436  1.00 20.00  7
      ATOM   1105  NH2 ARG B 204      74.555  35.084  -1.457  1.00 20.00  7
      ATOM   1106  C   ARG B 204      77.700  28.829   0.030  1.00 20.00  6
      ATOM   1107  O   ARG B 204      76.611  28.300  -0.177  1.00 20.00  8
      ATOM   1108  N   ASP B 205      78.792  28.456  -0.620  1.00 20.00  7
 20   ATOM   1109  CA  ASP B 205      78.718  27.342  -1.550  1.00 20.00  6
      ATOM   1110  CB  ASP B 205      78.380  27.829  -2.961  1.00 20.00  6
      ATOM   1111  CG  ASP B 205      77.941  26.694  -3.867  1.00 20.00  6
      ATOM   1112  OD1 ASP B 205      77.544  25.638  -3.330  1.00 20.00  8
      ATOM   1113  OD2 ASP B 205      77.982  26.853  -5.104  1.00 20.00  8
 25   ATOM   1114  C   ASP B 205      80.019  26.560  -1.547  1.00 20.00  6
      ATOM   1115  O   ASP B 205      80.508  26.122  -2.588  1.00 20.00  8
      ATOM   1116  N   LEU B 206      80.573  26.375  -0.354  1.00 20.00  7
      ATOM   1117  CA  LEU B 206      81.819  25.652  -0.208  1.00 20.00  6
      ATOM   1118  CB  LEU B 206      82.361  25.826   1.212  1.00 20.00  6
 30   ATOM   1119  CG  LEU B 206      83.764  25.271   1.471  1.00 20.00  6
      ATOM   1120  CD1 LEU B 206      84.765  25.969   0.561  1.00 20.00  6
      ATOM   1121  CD2 LEU B 206      84.135  25.477   2.933  1.00 20.00  6
      ATOM   1122  C   LEU B 206      81.609  24.174  -0.514  1.00 20.00  6
      ATOM   1123  O   LEU B 206      80.691  23.549   0.011  1.00 20.00  8
 35   ATOM   1124  N   LYS B 207      82.461  23.628  -1.375  1.00 20.00  7
      ATOM   1125  CA  LYS B 207      82.379  22.223  -1.765  1.00 20.00  6
      ATOM   1126  CB  LYS B 207      81.160  22.000  -2.679  1.00 20.00  6
      ATOM   1127  CG  LYS B 207      81.130  22.913  -3.893  1.00 20.00  6
      ATOM   1128  CD  LYS B 207      79.876  22.720  -4.736  1.00 20.00  6
 40   ATOM   1129  CE  LYS B 207      79.788  23.797  -5.813  1.00 20.00  6
      ATOM   1130  NZ  LYS B 207      78.695  23.557  -6.791  1.00 20.00  7
      ATOM   1131  C   LYS B 207      83.657  21.808  -2.487  1.00 20.00  6
      ATOM   1132  O   LYS B 207      84.416  22.656  -2.960  1.00 20.00  8
      ATOM   1133  N   PRO B 208      83.916  20.494  -2.582  1.00 20.00  7
 45   ATOM   1134  CD  PRO B 208      83.153  19.378  -1.993  1.00 20.00  6
      ATOM   1135  CA  PRO B 208      85.122  20.005  -3.259  1.00 20.00  6
      ATOM   1136  CB  PRO B 208      84.922  18.494  -3.267  1.00 20.00  6
      ATOM   1137  CG  PRO B 208      84.174  18.256  -1.984  1.00 20.00  6
      ATOM   1138  C   PRO B 208      85.303  20.574  -4.666  1.00 20.00  6
 50   ATOM   1139  O   PRO B 208      86.431  20.752  -5.124  1.00 20.00  8
      ATOM   1140  N   GLU B 209      84.197  20.859  -5.347  1.00 20.00  7
      ATOM   1141  CA  GLU B 209      84.243  21.410  -6.705  1.00 20.00  6
      ATOM   1142  CB  GLU B 209      82.836  21.424  -7.317  1.00 20.00  6
      ATOM   1143  CG  GLU B 209      82.755  22.081  -8.690  1.00 20.00  6
 55   ATOM   1144  CD  GLU B 209      81.323  22.296  -9.159  1.00 20.00  6
      ATOM   1145  OE1 GLU B 209      80.587  21.299  -9.322  1.00 20.00  8
      ATOM   1146  OE2 GLU B 209      80.933  23.465  -9.364  1.00 20.00  8
      ATOM   1147  C   GLU B 209      84.810  22.836  -6.716  1.00 20.00  6
      ATOM   1148  O   GLU B 209      85.409  23.269  -7.705  1.00 20.00  8
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	ATOM	1149	N	ASN B 210	84.604	23.549	-5.612	1.00	20.00	7
	ATOM	1150	CA	ASN B 210	85.051	24.932	-5.439	1.00	20.00	6
	ATOM	1151	CB	ASN B 210	84.033	25.695	-4.588	1.00	20.00	6
	ATOM	1152	CG	ASN B 210	82.851	26.170	-5.396	1.00	20.00	6
5	ATOM	1153	OD1	ASN B 210	81.807	26.520	-4.846	1.00	20.00	8
	ATOM	1154	ND2	ASN B 210	83.010	26.194	-6.717	1.00	20.00	7
	ATOM	1155	C	ASN B 210	86.427	25.070	-4.797	1.00	20.00	6
	ATOM	1156	O	ASN B 210	86.937	26.181	-4.641	1.00	20.00	8
	ATOM	1157	N	ILE B 211	87.016	23.948	-4.406	1.00	20.00	7
10	ATOM	1158	CA	ILE B 211	88.331	23.958	-3.790	1.00	20.00	6
	ATOM	1159	CB	ILE B 211	88.336	23.090	-2.521	1.00	20.00	6
	ATOM	1160	CG2	ILE B 211	89.732	23.025	-1.925	1.00	20.00	6
	ATOM	1161	CG1	ILE B 211	87.350	23.682	-1.510	1.00	20.00	6
	ATOM	1162	CD1	ILE B 211	87.121	22.832	-0.285	1.00	20.00	6
15	ATOM	1163	C	ILE B 211	89.307	23.414	-4.816	1.00	20.00	6
	ATOM	1164	O	ILE B 211	89.475	22.199	-4.949	1.00	20.00	8
	ATOM	1165	N	LEU B 212	89.938	24.319	-5.558	1.00	20.00	7
	ATOM	1166	CA	LEU B 212	90.875	23.918	-6.601	1.00	20.00	6
	ATOM	1167	CB	LEU B 212	90.966	25.012	-7.673	1.00	20.00	6
20	ATOM	1168	CG	LEU B 212	89.630	25.510	-8.235	1.00	20.00	6
	ATOM	1169	CD1	LEU B 212	89.896	26.462	-9.390	1.00	20.00	6
	ATOM	1170	CD2	LEU B 212	88.781	24.331	-8.709	1.00	20.00	6
	ATOM	1171	C	LEU B 212	92.254	23.628	-6.038	1.00	20.00	6
	ATOM	1172	O	LEU B 212	92.537	23.923	-4.873	1.00	20.00	8
25	ATOM	1173	N	LEU B 213	93.114	23.053	-6.875	1.00	20.00	7
	ATOM	1174	CA	LEU B 213	94.472	22.714	-6.472	1.00	20.00	6
	ATOM	1175	CB	LEU B 213	94.609	21.192	-6.388	1.00	20.00	6
	ATOM	1176	CG	LEU B 213	93.775	20.526	-5.292	1.00	20.00	6
	ATOM	1177	CD1	LEU B 213	93.737	19.035	-5.508	1.00	20.00	6
30	ATOM	1178	CD2	LEU B 213	94.374	20.852	-3.935	1.00	20.00	6
	ATOM	1179	C	LEU B 213	95.503	23.277	-7.449	1.00	20.00	6
	ATOM	1180	O	LEU B 213	95.422	23.033	-8.657	1.00	20.00	8
	ATOM	1181	N	ASN B 214	96.470	24.036	-6.940	1.00	20.00	7
	ATOM	1182	CA	ASN B 214	97.488	24.585	-7.826	1.00	20.00	6
35	ATOM	1183	CB	ASN B 214	98.198	25.792	-7.201	1.00	20.00	6
	ATOM	1184	CG	ASN B 214	98.938	25.448	-5.927	1.00	20.00	6
	ATOM	1185	OD1	ASN B 214	99.267	24.288	-5.669	1.00	20.00	8
	ATOM	1186	ND2	ASN B 214	99.224	26.469	-5.123	1.00	20.00	7
	ATOM	1187	C	ASN B 214	98.508	23.515	-8.182	1.00	20.00	6
40	ATOM	1188	O	ASN B 214	98.420	22.372	-7.725	1.00	20.00	8
	ATOM	1189	N	GLU B 215	99.482	23.894	-8.996	1.00	20.00	7
	ATOM	1190	CA	GLU B 215	100.514	22.965	-9.430	1.00	20.00	6
	ATOM	1191	CB	GLU B 215	101.491	23.687	-10.362	1.00	20.00	6
	ATOM	1192	CG	GLU B 215	102.544	22.788	-10.979	1.00	20.00	6
45	ATOM	1193	CD	GLU B 215	103.323	23.482	-12.080	1.00	20.00	6
	ATOM	1194	OE1	GLU B 215	103.909	24.554	-11.810	1.00	20.00	8
	ATOM	1195	OE2	GLU B 215	103.344	22.957	-13.215	1.00	20.00	8
	ATOM	1196	C	GLU B 215	101.275	22.307	-8.274	1.00	20.00	6
	ATOM	1197	O	GLU B 215	101.801	21.205	-8.428	1.00	20.00	8
50	ATOM	1198	N	ASP B 216	101.335	22.976	-7.123	1.00	20.00	7
	ATOM	1199	CA	ASP B 216	102.036	22.430	-5.958	1.00	20.00	6
	ATOM	1200	CB	ASP B 216	102.727	23.549	-5.179	1.00	20.00	6
	ATOM	1201	CG	ASP B 216	103.952	24.086	-5.896	1.00	20.00	6
	ATOM	1202	OD1	ASP B 216	104.766	23.267	-6.376	1.00	20.00	8
55	ATOM	1203	OD2	ASP B 216	104.110	25.323	-5.973	1.00	20.00	8
	ATOM	1204	C	ASP B 216	101.121	21.651	-5.013	1.00	20.00	6
	ATOM	1205	O	ASP B 216	101.532	21.241	-3.925	1.00	20.00	8
	ATOM	1206	N	MET B 217	99.877	21.463	-5.434	1.00	20.00	7
	ATOM	1207	CA	MET B 217	98.890	20.730	-4.657	1.00	20.00	6

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        ATOM   1208   CB   MET B 217      99.402  19.319  -4.358  1.00 20.00  6
        ATOM   1209   CG   MET B 217      99.456  18.432  -5.601  1.00 20.00  6
        ATOM   1210   SD   MET B 217      97.857  18.342  -6.445  1.00 20.00 16
        ATOM   1211   CE   MET B 217      97.073  16.984  -5.543  1.00 20.00  6
   5    ATOM   1212   C    MET B 217      98.397  21.403  -3.373  1.00 20.00  6
        ATOM   1213   O    MET B 217      97.972  20.730  -2.435  1.00 20.00  8
        ATOM   1214   N    HIS B 218      98.469  22.730  -3.331  1.00 20.00  7
        ATOM   1215   CA   HIS B 218      97.949  23.487  -2.197  1.00 20.00  6
        ATOM   1216   CB   HIS B 218      98.831  24.700  -1.898  1.00 20.00  6
  10    ATOM   1217   CG   HIS B 218     100.100  24.357  -1.177  1.00 20.00  6
        ATOM   1218   CD2  HIS B 218     101.390  24.362  -1.588  1.00 20.00  6
        ATOM   1219   ND1  HIS B 218     100.117  23.935   0.136  1.00 20.00  7
        ATOM   1220   CE1  HIS B 218     101.364  23.698   0.504  1.00 20.00  6
        ATOM   1221   NE2  HIS B 218     102.156  23.947  -0.524  1.00 20.00  7
  15    ATOM   1222   C    HIS B 218      96.583  23.939  -2.703  1.00 20.00  6
        ATOM   1223   O    HIS B 218      96.400  24.090  -3.910  1.00 20.00  8
        ATOM   1224   N    ILE B 219      95.628  24.160  -1.808  1.00 20.00  7
        ATOM   1225   CA   ILE B 219      94.301  24.562  -2.257  1.00 20.00  6
        ATOM   1226   CB   ILE B 219      93.232  24.359  -1.159  1.00 20.00  6
  20    ATOM   1227   CG2  ILE B 219      93.266  22.918  -0.654  1.00 20.00  6
        ATOM   1228   CG1  ILE B 219      93.460  25.353  -0.011  1.00 20.00  6
        ATOM   1229   CD1  ILE B 219      92.351  25.342   1.036  1.00 20.00  6
        ATOM   1230   C    ILE B 219      94.207  26.010  -2.714  1.00 20.00  6
        ATOM   1231   O    ILE B 219      95.044  26.850  -2.375  1.00 20.00  8
  25    ATOM   1232   N    GLN B 220      93.168  26.274  -3.497  1.00 20.00  7
        ATOM   1233   CA   GLN B 220      92.859  27.600  -3.999  1.00 20.00  6
        ATOM   1234   CB   GLN B 220      93.537  27.867  -5.350  1.00 20.00  6
        ATOM   1235   CG   GLN B 220      95.011  28.246  -5.216  1.00 20.00  6
        ATOM   1236   CD   GLN B 220      95.599  28.799  -6.503  1.00 20.00  6
  30    ATOM   1237   OE1  GLN B 220      95.725  28.086  -7.502  1.00 20.00  8
        ATOM   1238   NE2  GLN B 220      95.957  30.079  -6.486  1.00 20.00  7
        ATOM   1239   C    GLN B 220      91.350  27.626  -4.140  1.00 20.00  6
        ATOM   1240   O    GLN B 220      90.792  27.133  -5.124  1.00 20.00  8
        ATOM   1241   N    ILE B 221      90.689  28.178  -3.129  1.00 20.00  7
  35    ATOM   1242   CA   ILE B 221      89.240  28.260  -3.122  1.00 20.00  6
        ATOM   1243   CB   ILE B 221      88.731  28.550  -1.700  1.00 20.00  6
        ATOM   1244   CG2  ILE B 221      87.209  28.707  -1.708  1.00 20.00  6
        ATOM   1245   CG1  ILE B 221      89.164  27.406  -0.773  1.00 20.00  6
        ATOM   1246   CD1  ILE B 221      88.743  27.559   0.668  1.00 20.00  6
  40    ATOM   1247   C    ILE B 221      88.760  29.339  -4.092  1.00 20.00  6
        ATOM   1248   O    ILE B 221      89.411  30.374  -4.262  1.00 20.00  8
        ATOM   1249   N    THR B 222      87.633  29.082  -4.748  1.00 20.00  7
        ATOM   1250   CA   THR B 222      87.084  30.039  -5.701  1.00 20.00  6
        ATOM   1251   CB   THR B 222      87.565  29.728  -7.125  1.00 20.00  6
  45    ATOM   1252   OG1  THR B 222      87.179  30.795  -8.000  1.00 20.00  8
        ATOM   1253   CG2  THR B 222      86.962  28.410  -7.618  1.00 20.00  6
        ATOM   1254   C    THR B 222      85.554  30.028  -5.683  1.00 20.00  6
        ATOM   1255   O    THR B 222      84.950  29.417  -4.791  1.00 20.00  8
        ATOM   1256   N    ASP B 223      84.949  30.712  -6.659  1.00 20.00  7
  50    ATOM   1257   CA   ASP B 223      83.492  30.806  -6.806  1.00 20.00  6
        ATOM   1258   CB   ASP B 223      82.872  29.399  -6.767  1.00 20.00  6
        ATOM   1259   CG   ASP B 223      81.414  29.384  -7.205  1.00 20.00  6
        ATOM   1260   OD1  ASP B 223      80.990  30.335  -7.900  1.00 20.00  8
        ATOM   1261   OD2  ASP B 223      80.701  28.414  -6.866  1.00 20.00  8
  55    ATOM   1262   C    ASP B 223      82.878  31.694  -5.725  1.00 20.00  6
        ATOM   1263   O    ASP B 223      82.191  31.208  -4.820  1.00 20.00  8
        ATOM   1264   N    PHE B 224      83.105  33.001  -5.848  1.00 20.00  7
        ATOM   1265   CA   PHE B 224      82.632  33.970  -4.866  1.00 20.00  6
        ATOM   1266   CB   PHE B 224      83.800  34.869  -4.451  1.00 20.00  6
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	ATOM	1267	CG	PHE	B	224	84.826	34.165	-3.612	1.00	20.00	6
	ATOM	1268	CD1	PHE	B	224	84.590	33.931	-2.261	1.00	20.00	6
	ATOM	1269	CD2	PHE	B	224	86.001	33.687	-4.182	1.00	20.00	6
	ATOM	1270	CE1	PHE	B	224	85.509	33.227	-1.486	1.00	20.00	6
5	ATOM	1271	CE2	PHE	B	224	86.927	32.981	-3.418	1.00	20.00	6
	ATOM	1272	CZ	PHE	B	224	86.679	32.750	-2.068	1.00	20.00	6
	ATOM	1273	C	PHE	B	224	81.443	34.839	-5.256	1.00	20.00	6
	ATOM	1274	O	PHE	B	224	81.001	35.678	-4.468	1.00	20.00	8
	ATOM	1275	N	GLY	B	225	80.928	34.647	-6.463	1.00	20.00	7
10	ATOM	1276	CA	GLY	B	225	79.793	35.438	-6.894	1.00	20.00	6
	ATOM	1277	C	GLY	B	225	78.612	35.265	-5.955	1.00	20.00	6
	ATOM	1278	O	GLY	B	225	77.824	36.192	-5.753	1.00	20.00	8
	ATOM	1279	N	THR	B	226	78.486	34.080	-5.367	1.00	20.00	7
	ATOM	1280	CA	THR	B	226	77.379	33.819	-4.459	1.00	20.00	6
15	ATOM	1281	CB	THR	B	226	76.779	32.425	-4.715	1.00	20.00	6
	ATOM	1282	OG1	THR	B	226	77.826	31.450	-4.762	1.00	20.00	8
	ATOM	1283	CG2	THR	B	226	76.021	32.417	-6.041	1.00	20.00	6
	ATOM	1284	C	THR	B	226	77.738	33.957	-2.981	1.00	20.00	6
	ATOM	1285	O	THR	B	226	77.001	33.500	-2.107	1.00	20.00	8
20	ATOM	1286	N	ALA	B	227	78.867	34.598	-2.702	1.00	20.00	7
	ATOM	1287	CA	ALA	B	227	79.282	34.800	-1.325	1.00	20.00	6
	ATOM	1288	CB	ALA	B	227	80.738	35.242	-1.268	1.00	20.00	6
	ATOM	1289	C	ALA	B	227	78.384	35.875	-0.726	1.00	20.00	6
	ATOM	1290	O	ALA	B	227	77.623	36.529	-1.440	1.00	20.00	8
25	ATOM	1291	N	LYS	B	228	78.467	36.046	0.586	1.00	20.00	7
	ATOM	1292	CA	LYS	B	228	77.670	37.051	1.274	1.00	20.00	6
	ATOM	1293	CB	LYS	B	228	76.637	36.384	2.179	1.00	20.00	6
	ATOM	1294	CG	LYS	B	228	75.705	37.357	2.890	1.00	20.00	6
	ATOM	1295	CD	LYS	B	228	74.795	38.072	1.893	1.00	20.00	6
30	ATOM	1296	CE	LYS	B	228	73.849	39.049	2.587	1.00	20.00	6
	ATOM	1297	NZ	LYS	B	228	73.000	39.781	1.605	1.00	20.00	7
	ATOM	1298	C	LYS	B	228	78.616	37.896	2.110	1.00	20.00	6
	ATOM	1299	O	LYS	B	228	79.355	37.366	2.940	1.00	20.00	8
	ATOM	1300	N	VAL	B	229	78.603	39.206	1.881	1.00	20.00	7
35	ATOM	1301	CA	VAL	B	229	79.463	40.114	2.626	1.00	20.00	6
	ATOM	1302	CB	VAL	B	229	79.976	41.256	1.734	1.00	20.00	6
	ATOM	1303	CG1	VAL	B	229	80.853	42.191	2.540	1.00	20.00	6
	ATOM	1304	CG2	VAL	B	229	80.746	40.686	0.561	1.00	20.00	6
	ATOM	1305	C	VAL	B	229	78.687	40.710	3.793	1.00	20.00	6
40	ATOM	1306	O	VAL	B	229	77.798	41.537	3.599	1.00	20.00	8
	ATOM	1307	N	LEU	B	230	79.034	40.284	5.003	1.00	20.00	7
	ATOM	1308	CA	LEU	B	230	78.370	40.752	6.213	1.00	20.00	6
	ATOM	1309	CB	LEU	B	230	78.740	39.856	7.395	1.00	20.00	6
	ATOM	1310	CG	LEU	B	230	78.276	38.403	7.332	1.00	20.00	6
45	ATOM	1311	CD1	LEU	B	230	78.853	37.634	8.508	1.00	20.00	6
	ATOM	1312	CD2	LEU	B	230	76.760	38.350	7.339	1.00	20.00	6
	ATOM	1313	C	LEU	B	230	78.705	42.193	6.565	1.00	20.00	6
	ATOM	1314	O	LEU	B	230	79.768	42.701	6.214	1.00	20.00	8
	ATOM	1315	N	SER	B	231	77.781	42.839	7.270	1.00	20.00	7
50	ATOM	1316	CA	SER	B	231	77.957	44.219	7.708	1.00	20.00	6
	ATOM	1317	CB	SER	B	231	77.082	45.161	6.875	1.00	20.00	6
	ATOM	1318	OG	SER	B	231	75.714	44.795	6.948	1.00	20.00	8
	ATOM	1319	C	SER	B	231	77.623	44.373	9.196	1.00	20.00	6
	ATOM	1320	O	SER	B	231	78.322	45.086	9.919	1.00	20.00	8
55	ATOM	1321	N	PRO	B	232	76.553	43.705	9.674	1.00	20.00	7
	ATOM	1322	CD	PRO	B	232	75.571	42.876	8.948	1.00	20.00	6
	ATOM	1323	CA	PRO	B	232	76.182	43.811	11.091	1.00	20.00	6
	ATOM	1324	CB	PRO	B	232	75.005	42.844	11.211	1.00	20.00	6
	ATOM	1325	CG	PRO	B	232	74.367	42.933	9.862	1.00	20.00	6

	ATOM	1326	C	PRO	B	232	77.332	43.438	12.024	1.00	20.00	6
	ATOM	1327	O	PRO	B	232	78.199	42.640	11.666	1.00	20.00	8
	ATOM	1328	N	ALA	B	237	74.215	38.132	11.762	1.00	20.00	7
	ATOM	1329	CA	ALA	B	237	74.666	37.653	10.460	1.00	20.00	6
5	ATOM	1330	CB	ALA	B	237	75.541	36.417	10.637	1.00	20.00	6
	ATOM	1331	C	ALA	B	237	73.479	37.324	9.558	1.00	20.00	6
	ATOM	1332	O	ALA	B	237	73.143	36.158	9.374	1.00	20.00	8
	ATOM	1333	N	ALA	B	238	72.841	38.347	8.996	1.00	20.00	7
	ATOM	1334	CA	ALA	B	238	71.693	38.130	8.117	1.00	20.00	6
10	ATOM	1335	CB	ALA	B	238	70.973	39.450	7.853	1.00	20.00	6
	ATOM	1336	C	ALA	B	238	72.123	37.497	6.798	1.00	20.00	6
	ATOM	1337	O	ALA	B	238	73.315	37.404	6.500	1.00	20.00	8
	ATOM	1338	N	ALA	B	239	71.146	37.057	6.012	1.00	20.00	7
	ATOM	1339	CA	ALA	B	239	71.439	36.431	4.728	1.00	20.00	6
15	ATOM	1340	CB	ALA	B	239	72.152	35.123	4.952	1.00	20.00	6
	ATOM	1341	C	ALA	B	239	70.173	36.194	3.918	1.00	20.00	6
	ATOM	1342	O	ALA	B	239	69.329	37.079	3.825	1.00	20.00	8
	ATOM	1343	N	ASN	B	240	70.068	34.996	3.339	1.00	20.00	7
	ATOM	1344	CA	ASN	B	240	68.939	34.559	2.514	1.00	20.00	6
20	ATOM	1345	CB	ASN	B	240	67.614	35.160	2.999	1.00	20.00	6
	ATOM	1346	CG	ASN	B	240	67.258	36.466	2.299	1.00	20.00	6
	ATOM	1347	OD1	ASN	B	240	67.119	36.519	1.068	1.00	20.00	8
	ATOM	1348	ND2	ASN	B	240	67.091	37.536	3.089	1.00	20.00	7
	ATOM	1349	C	ASN	B	240	69.153	34.937	1.053	1.00	20.00	6
25	ATOM	1350	O	ASN	B	240	70.007	35.767	0.749	1.00	20.00	8
	ATOM	1351	N	ALA	B	241	68.365	34.329	0.163	1.00	20.00	7
	ATOM	1352	CA	ALA	B	241	68.401	34.570	-1.290	1.00	20.00	6
	ATOM	1353	C	ALA	B	241	68.990	33.416	-2.103	1.00	20.00	6
	ATOM	1354	O	ALA	B	241	68.353	32.919	-3.030	1.00	20.00	8
30	ATOM	1355	CB	ALA	B	241	69.168	35.859	-1.629	1.00	20.00	6
	ATOM	1356	N	PHE	B	242	70.205	33.000	-1.762	1.00	20.00	7
	ATOM	1357	CA	PHE	B	242	70.875	31.918	-2.481	1.00	20.00	6
	ATOM	1358	CB	PHE	B	242	72.259	32.379	-2.952	1.00	20.00	6
	ATOM	1359	CG	PHE	B	242	73.102	31.273	-3.521	1.00	20.00	6
35	ATOM	1360	CD1	PHE	B	242	72.843	30.767	-4.790	1.00	20.00	6
	ATOM	1361	CD2	PHE	B	242	74.136	30.713	-2.773	1.00	20.00	6
	ATOM	1362	CE1	PHE	B	242	73.599	29.718	-5.310	1.00	20.00	6
	ATOM	1363	CE2	PHE	B	242	74.896	29.666	-3.281	1.00	20.00	6
	ATOM	1364	CZ	PHE	B	242	74.627	29.166	-4.553	1.00	20.00	6
40	ATOM	1365	C	PHE	B	242	71.038	30.652	-1.646	1.00	20.00	6
	ATOM	1366	O	PHE	B	242	71.213	30.716	-0.431	1.00	20.00	8
	ATOM	1367	N	VAL	B	243	70.988	29.505	-2.318	1.00	20.00	7
	ATOM	1368	CA	VAL	B	243	71.157	28.204	-1.675	1.00	20.00	6
	ATOM	1369	CB	VAL	B	243	69.828	27.420	-1.617	1.00	20.00	6
45	ATOM	1370	CG1	VAL	B	243	70.066	26.023	-1.050	1.00	20.00	6
	ATOM	1371	CG2	VAL	B	243	68.825	28.177	-0.766	1.00	20.00	6
	ATOM	1372	C	VAL	B	243	72.164	27.394	-2.486	1.00	20.00	6
	ATOM	1373	O	VAL	B	243	71.894	27.014	-3.628	1.00	20.00	8
	ATOM	1374	N	GLY	B	244	73.323	27.137	-1.890	1.00	20.00	7
50	ATOM	1375	CA	GLY	B	244	74.364	26.385	-2.569	1.00	20.00	6
	ATOM	1376	C	GLY	B	244	74.019	24.944	-2.911	1.00	20.00	6
	ATOM	1377	O	GLY	B	244	72.867	24.524	-2.810	1.00	20.00	8
	ATOM	1378	N	THR	B	245	75.032	24.184	-3.315	1.00	20.00	7
	ATOM	1379	CA	THR	B	245	74.858	22.787	-3.691	1.00	20.00	6
55	ATOM	1380	CB	THR	B	245	76.214	22.161	-4.046	1.00	20.00	6
	ATOM	1381	OG1	THR	B	245	76.794	22.911	-5.120	1.00	20.00	8
	ATOM	1382	CG2	THR	B	245	76.049	20.710	-4.485	1.00	20.00	6
	ATOM	1383	C	THR	B	245	74.174	22.003	-2.579	1.00	20.00	6
	ATOM	1384	O	THR	B	245	74.643	21.969	-1.441	1.00	20.00	8

	ATOM	1385	N	ALA	B	246	73.061	21.372	-2.937	1.00	20.00	7
	ATOM	1386	CA	ALA	B	246	72.229	20.615	-2.008	1.00	20.00	6
	ATOM	1387	CB	ALA	B	246	71.266	19.723	-2.793	1.00	20.00	6
	ATOM	1388	C	ALA	B	246	72.936	19.789	-0.941	1.00	20.00	6
5	ATOM	1389	O	ALA	B	246	72.611	19.894	0.239	1.00	20.00	8
	ATOM	1390	N	GLN	B	247	73.902	18.973	-1.339	1.00	20.00	7
	ATOM	1391	CA	GLN	B	247	74.580	18.121	-0.371	1.00	20.00	6
	ATOM	1392	CB	GLN	B	247	75.535	17.168	-1.096	1.00	20.00	6
	ATOM	1393	CG	GLN	B	247	75.110	16.823	-2.520	1.00	20.00	6
10	ATOM	1394	CD	GLN	B	247	75.139	15.336	-2.811	1.00	20.00	6
	ATOM	1395	OE1	GLN	B	247	75.963	14.602	-2.270	1.00	20.00	8
	ATOM	1396	NE2	GLN	B	247	74.246	14.887	-3.686	1.00	20.00	7
	ATOM	1397	C	GLN	B	247	75.343	18.873	0.720	1.00	20.00	6
	ATOM	1398	O	GLN	B	247	75.631	18.306	1.773	1.00	20.00	8
15	ATOM	1399	N	TYR	B	248	75.648	20.147	0.484	1.00	20.00	7
	ATOM	1400	CA	TYR	B	248	76.405	20.941	1.454	1.00	20.00	6
	ATOM	1401	CB	TYR	B	248	77.642	21.531	0.767	1.00	20.00	6
	ATOM	1402	CG	TYR	B	248	78.447	20.471	0.052	1.00	20.00	6
	ATOM	1403	CD1	TYR	B	248	79.329	19.648	0.750	1.00	20.00	6
20	ATOM	1404	CE1	TYR	B	248	79.979	18.589	0.115	1.00	20.00	6
	ATOM	1405	CD2	TYR	B	248	78.243	20.220	-1.306	1.00	20.00	6
	ATOM	1406	CE2	TYR	B	248	78.884	19.167	-1.951	1.00	20.00	6
	ATOM	1407	CZ	TYR	B	248	79.748	18.352	-1.232	1.00	20.00	6
	ATOM	1408	OH	TYR	B	248	80.348	17.280	-1.852	1.00	20.00	8
25	ATOM	1409	C	TYR	B	248	75.596	22.055	2.118	1.00	20.00	6
	ATOM	1410	O	TYR	B	248	76.132	22.824	2.917	1.00	20.00	8
	ATOM	1411	N	VAL	B	249	74.309	22.135	1.798	1.00	20.00	7
	ATOM	1412	CA	VAL	B	249	73.452	23.162	2.376	1.00	20.00	6
	ATOM	1413	CB	VAL	B	249	72.071	23.174	1.695	1.00	20.00	6
30	ATOM	1414	CG1	VAL	B	249	71.117	24.100	2.442	1.00	20.00	6
	ATOM	1415	CG2	VAL	B	249	72.225	23.632	0.264	1.00	20.00	6
	ATOM	1416	C	VAL	B	249	73.262	22.964	3.875	1.00	20.00	6
	ATOM	1417	O	VAL	B	249	73.027	21.847	4.341	1.00	20.00	8
	ATOM	1418	N	SER	B	250	73.373	24.055	4.628	1.00	20.00	7
35	ATOM	1419	CA	SER	B	250	73.206	24.008	6.076	1.00	20.00	6
	ATOM	1420	CB	SER	B	250	73.921	25.198	6.738	1.00	20.00	6
	ATOM	1421	OG	SER	B	250	73.428	26.440	6.257	1.00	20.00	8
	ATOM	1422	C	SER	B	250	71.717	24.049	6.405	1.00	20.00	6
	ATOM	1423	O	SER	B	250	70.920	24.577	5.636	1.00	20.00	8
40	ATOM	1424	N	PRO	B	251	71.322	23.479	7.550	1.00	20.00	7
	ATOM	1425	CD	PRO	B	251	72.130	22.770	8.558	1.00	20.00	6
	ATOM	1426	CA	PRO	B	251	69.905	23.484	7.925	1.00	20.00	6
	ATOM	1427	CB	PRO	B	251	69.892	22.714	9.252	1.00	20.00	6
	ATOM	1428	CG	PRO	B	251	71.290	22.936	9.801	1.00	20.00	6
45	ATOM	1429	C	PRO	B	251	69.265	24.870	8.032	1.00	20.00	6
	ATOM	1430	O	PRO	B	251	68.093	25.036	7.688	1.00	20.00	8
	ATOM	1431	N	GLU	B	252	70.017	25.867	8.492	1.00	20.00	7
	ATOM	1432	CA	GLU	B	252	69.462	27.216	8.625	1.00	20.00	6
	ATOM	1433	CB	GLU	B	252	70.503	28.193	9.196	1.00	20.00	6
50	ATOM	1434	CG	GLU	B	252	71.838	28.180	8.477	1.00	20.00	6
	ATOM	1435	CD	GLU	B	252	72.844	27.257	9.139	1.00	20.00	6
	ATOM	1436	OE1	GLU	B	252	72.429	26.207	9.675	1.00	20.00	8
	ATOM	1437	OE2	GLU	B	252	74.053	27.581	9.118	1.00	20.00	8
	ATOM	1438	C	GLU	B	252	68.928	27.744	7.292	1.00	20.00	6
55	ATOM	1439	O	GLU	B	252	67.927	28.459	7.261	1.00	20.00	8
	ATOM	1440	N	LEU	B	253	69.584	27.395	6.189	1.00	20.00	7
	ATOM	1441	CA	LEU	B	253	69.117	27.850	4.883	1.00	20.00	6
	ATOM	1442	CB	LEU	B	253	70.140	27.527	3.794	1.00	20.00	6
	ATOM	1443	CG	LEU	B	253	71.127	28.635	3.421	1.00	20.00	6

	ATOM	1444	CD1	LEU	B	253	72.121	28.851	4.547	1.00	20.00	6
	ATOM	1445	CD2	LEU	B	253	71.858	28.250	2.140	1.00	20.00	6
	ATOM	1446	C	LEU	B	253	67.774	27.227	4.496	1.00	20.00	6
	ATOM	1447	O	LEU	B	253	66.997	27.826	3.751	1.00	20.00	8
5	ATOM	1448	N	LEU	B	254	67.506	26.029	5.002	1.00	20.00	7
	ATOM	1449	CA	LEU	B	254	66.271	25.316	4.689	1.00	20.00	6
	ATOM	1450	CB	LEU	B	254	66.539	23.809	4.689	1.00	20.00	6
	ATOM	1451	CG	LEU	B	254	67.647	23.322	3.746	1.00	20.00	6
	ATOM	1452	CD1	LEU	B	254	67.983	21.873	4.057	1.00	20.00	6
10	ATOM	1453	CD2	LEU	B	254	67.204	23.475	2.302	1.00	20.00	6
	ATOM	1454	C	LEU	B	254	65.135	25.626	5.662	1.00	20.00	6
	ATOM	1455	O	LEU	B	254	63.959	25.524	5.312	1.00	20.00	8
	ATOM	1456	N	THR	B	255	65.483	26.010	6.883	1.00	20.00	7
	ATOM	1457	CA	THR	B	255	64.472	26.308	7.884	1.00	20.00	6
15	ATOM	1458	CB	THR	B	255	64.876	25.747	9.252	1.00	20.00	6
	ATOM	1459	OG1	THR	B	255	66.154	26.277	9.619	1.00	20.00	8
	ATOM	1460	CG2	THR	B	255	64.958	24.230	9.202	1.00	20.00	6
	ATOM	1461	C	THR	B	255	64.205	27.795	8.035	1.00	20.00	6
	ATOM	1462	O	THR	B	255	63.072	28.241	7.897	1.00	20.00	8
20	ATOM	1463	N	GLU	B	256	65.250	28.560	8.314	1.00	20.00	7
	ATOM	1464	CA	GLU	B	256	65.115	30.001	8.507	1.00	20.00	6
	ATOM	1465	CB	GLU	B	256	66.015	30.444	9.659	1.00	20.00	6
	ATOM	1466	CG	GLU	B	256	65.634	29.818	10.987	1.00	20.00	6
	ATOM	1467	CD	GLU	B	256	66.736	29.922	12.018	1.00	20.00	6
25	ATOM	1468	OE1	GLU	B	256	67.249	31.041	12.232	1.00	20.00	8
	ATOM	1469	OE2	GLU	B	256	67.086	28.884	12.619	1.00	20.00	8
	ATOM	1470	C	GLU	B	256	65.439	30.815	7.262	1.00	20.00	6
	ATOM	1471	O	GLU	B	256	65.268	32.034	7.252	1.00	20.00	8
	ATOM	1472	N	LYS	B	257	65.906	30.141	6.215	1.00	20.00	7
30	ATOM	1473	CA	LYS	B	257	66.260	30.814	4.970	1.00	20.00	6
	ATOM	1474	CB	LYS	B	257	65.015	31.458	4.352	1.00	20.00	6
	ATOM	1475	CG	LYS	B	257	65.184	31.918	2.915	1.00	20.00	6
	ATOM	1476	CD	LYS	B	257	63.885	32.497	2.378	1.00	20.00	6
	ATOM	1477	CE	LYS	B	257	63.994	32.841	0.902	1.00	20.00	6
35	ATOM	1478	NZ	LYS	B	257	65.060	33.847	0.640	1.00	20.00	7
	ATOM	1479	C	LYS	B	257	67.309	31.885	5.263	1.00	20.00	6
	ATOM	1480	O	LYS	B	257	67.270	32.977	4.702	1.00	20.00	8
	ATOM	1481	N	SER	B	258	68.243	31.563	6.152	1.00	20.00	7
	ATOM	1482	CA	SER	B	258	69.300	32.494	6.527	1.00	20.00	6
40	ATOM	1483	CB	SER	B	258	69.043	33.028	7.937	1.00	20.00	6
	ATOM	1484	OG	SER	B	258	68.893	31.962	8.859	1.00	20.00	8
	ATOM	1485	C	SER	B	258	70.675	31.829	6.467	1.00	20.00	6
	ATOM	1486	O	SER	B	258	70.786	30.602	6.542	1.00	20.00	8
	ATOM	1487	N	ALA	B	259	71.718	32.641	6.329	1.00	20.00	7
45	ATOM	1488	CA	ALA	B	259	73.081	32.130	6.252	1.00	20.00	6
	ATOM	1489	CB	ALA	B	259	73.549	32.121	4.809	1.00	20.00	6
	ATOM	1490	C	ALA	B	259	74.031	32.966	7.102	1.00	20.00	6
	ATOM	1491	O	ALA	B	259	73.882	34.185	7.211	1.00	20.00	8
	ATOM	1492	N	CYS	B	260	75.008	32.298	7.704	1.00	20.00	7
50	ATOM	1493	CA	CYS	B	260	75.993	32.960	8.550	1.00	20.00	6
	ATOM	1494	CB	CYS	B	260	75.574	32.865	10.017	1.00	20.00	6
	ATOM	1495	SG	CYS	B	260	75.303	31.165	10.594	1.00	20.00	16
	ATOM	1496	C	CYS	B	260	77.328	32.265	8.349	1.00	20.00	6
	ATOM	1497	O	CYS	B	260	77.410	31.280	7.620	1.00	20.00	8
55	ATOM	1498	N	LYS	B	261	78.371	32.775	8.993	1.00	20.00	7
	ATOM	1499	CA	LYS	B	261	79.691	32.174	8.869	1.00	20.00	6
	ATOM	1500	CB	LYS	B	261	80.676	32.851	9.821	1.00	20.00	6
	ATOM	1501	CG	LYS	B	261	80.985	34.296	9.472	1.00	20.00	6
	ATOM	1502	CD	LYS	B	261	81.961	34.878	10.475	1.00	20.00	6

	ATOM	1503	CE	LYS	B	261	82.157	36.365	10.259	1.00	20.00	6
	ATOM	1504	NZ	LYS	B	261	83.085	36.922	11.278	1.00	20.00	7
	ATOM	1505	C	LYS	B	261	79.632	30.687	9.187	1.00	20.00	6
	ATOM	1506	O	LYS	B	261	80.258	29.877	8.512	1.00	20.00	8
5	ATOM	1507	N	SER	B	262	78.860	30.346	10.214	1.00	20.00	7
	ATOM	1508	CA	SER	B	262	78.716	28.966	10.659	1.00	20.00	6
	ATOM	1509	CB	SER	B	262	77.806	28.913	11.895	1.00	20.00	6
	ATOM	1510	OG	SER	B	262	77.884	27.657	12.546	1.00	20.00	8
	ATOM	1511	C	SER	B	262	78.161	28.070	9.549	1.00	20.00	6
10	ATOM	1512	O	SER	B	262	78.350	26.856	9.575	1.00	20.00	8
	ATOM	1513	N	SER	B	263	77.466	28.660	8.581	1.00	20.00	7
	ATOM	1514	CA	SER	B	263	76.938	27.870	7.472	1.00	20.00	6
	ATOM	1515	CB	SER	B	263	76.132	28.750	6.507	1.00	20.00	6
	ATOM	1516	OG	SER	B	263	75.011	29.329	7.156	1.00	20.00	8
15	ATOM	1517	C	SER	B	263	78.123	27.244	6.737	1.00	20.00	6
	ATOM	1518	O	SER	B	263	78.038	26.108	6.273	1.00	20.00	8
	ATOM	1519	N	ASP	B	264	79.234	27.977	6.642	1.00	20.00	7
	ATOM	1520	CA	ASP	B	264	80.419	27.448	5.961	1.00	20.00	6
	ATOM	1521	CB	ASP	B	264	81.478	28.538	5.745	1.00	20.00	6
20	ATOM	1522	CG	ASP	B	264	81.091	29.539	4.673	1.00	20.00	6
	ATOM	1523	OD1	ASP	B	264	80.286	29.187	3.786	1.00	20.00	8
	ATOM	1524	OD2	ASP	B	264	81.617	30.676	4.704	1.00	20.00	8
	ATOM	1525	C	ASP	B	264	81.043	26.312	6.771	1.00	20.00	6
	ATOM	1526	O	ASP	B	264	81.586	25.365	6.201	1.00	20.00	8
25	ATOM	1527	N	LEU	B	265	80.971	26.415	8.099	1.00	20.00	7
	ATOM	1528	CA	LEU	B	265	81.532	25.390	8.974	1.00	20.00	6
	ATOM	1529	CB	LEU	B	265	81.491	25.848	10.438	1.00	20.00	6
	ATOM	1530	CG	LEU	B	265	82.419	27.035	10.746	1.00	20.00	6
	ATOM	1531	CD1	LEU	B	265	82.204	27.532	12.177	1.00	20.00	6
30	ATOM	1532	CD2	LEU	B	265	83.864	26.608	10.541	1.00	20.00	6
	ATOM	1533	C	LEU	B	265	80.750	24.094	8.800	1.00	20.00	6
	ATOM	1534	O	LEU	B	265	81.306	23.004	8.910	1.00	20.00	8
	ATOM	1535	N	TRP	B	266	79.454	24.208	8.530	1.00	20.00	7
	ATOM	1536	CA	TRP	B	266	78.646	23.017	8.309	1.00	20.00	6
35	ATOM	1537	CB	TRP	B	266	77.167	23.384	8.148	1.00	20.00	6
	ATOM	1538	CG	TRP	B	266	76.310	22.245	7.646	1.00	20.00	6
	ATOM	1539	CD2	TRP	B	266	75.455	21.399	8.426	1.00	20.00	6
	ATOM	1540	CE2	TRP	B	266	74.881	20.455	7.542	1.00	20.00	6
	ATOM	1541	CE3	TRP	B	266	75.117	21.345	9.785	1.00	20.00	6
40	ATOM	1542	CD1	TRP	B	266	76.220	21.792	6.356	1.00	20.00	6
	ATOM	1543	NE1	TRP	B	266	75.365	20.719	6.288	1.00	20.00	7
	ATOM	1544	CZ2	TRP	B	266	73.988	19.466	7.975	1.00	20.00	6
	ATOM	1545	CZ3	TRP	B	266	74.227	20.359	10.216	1.00	20.00	6
	ATOM	1546	CH2	TRP	B	266	73.674	19.434	9.310	1.00	20.00	6
45	ATOM	1547	C	TRP	B	266	79.169	22.356	7.038	1.00	20.00	6
	ATOM	1548	O	TRP	B	266	79.356	21.142	6.988	1.00	20.00	8
	ATOM	1549	N	ALA	B	267	79.411	23.164	6.011	1.00	20.00	7
	ATOM	1550	CA	ALA	B	267	79.930	22.646	4.751	1.00	20.00	6
	ATOM	1551	CB	ALA	B	267	80.089	23.772	3.746	1.00	20.00	6
50	ATOM	1552	C	ALA	B	267	81.277	21.976	5.016	1.00	20.00	6
	ATOM	1553	O	ALA	B	267	81.570	20.914	4.471	1.00	20.00	8
	ATOM	1554	N	LEU	B	268	82.091	22.596	5.864	1.00	20.00	7
	ATOM	1555	CA	LEU	B	268	83.393	22.030	6.209	1.00	20.00	6
	ATOM	1556	CB	LEU	B	268	84.092	22.898	7.264	1.00	20.00	6
55	ATOM	1557	CG	LEU	B	268	85.379	22.332	7.879	1.00	20.00	6
	ATOM	1558	CD1	LEU	B	268	86.442	22.192	6.803	1.00	20.00	6
	ATOM	1559	CD2	LEU	B	268	85.872	23.263	9.006	1.00	20.00	6
	ATOM	1560	C	LEU	B	268	83.193	20.617	6.753	1.00	20.00	6
	ATOM	1561	O	LEU	B	268	83.903	19.684	6.372	1.00	20.00	8

	ATOM	1562	N	GLY B 269	82.220	20.463	7.645	1.00	20.00	7
	ATOM	1563	CA	GLY B 269	81.947	19.156	8.217	1.00	20.00	6
	ATOM	1564	C	GLY B 269	81.597	18.125	7.156	1.00	20.00	6
	ATOM	1565	O	GLY B 269	82.025	16.971	7.239	1.00	20.00	8
5	ATOM	1566	N	CYS B 270	80.819	18.530	6.155	1.00	20.00	7
	ATOM	1567	CA	CYS B 270	80.445	17.613	5.083	1.00	20.00	6
	ATOM	1568	CB	CYS B 270	79.413	18.255	4.148	1.00	20.00	6
	ATOM	1569	SG	CYS B 270	77.824	18.654	4.905	1.00	20.00	16
	ATOM	1570	C	CYS B 270	81.682	17.241	4.265	1.00	20.00	6
10	ATOM	1571	O	CYS B 270	81.852	16.090	3.866	1.00	20.00	8
	ATOM	1572	N	ILE B 271	82.541	18.226	4.012	1.00	20.00	7
	ATOM	1573	CA	ILE B 271	83.751	18.000	3.229	1.00	20.00	6
	ATOM	1574	CB	ILE B 271	84.436	19.339	2.903	1.00	20.00	6
	ATOM	1575	CG2	ILE B 271	85.784	19.098	2.227	1.00	20.00	6
15	ATOM	1576	CG1	ILE B 271	83.508	20.171	2.007	1.00	20.00	6
	ATOM	1577	CD1	ILE B 271	83.962	21.607	1.815	1.00	20.00	6
	ATOM	1578	C	ILE B 271	84.729	17.063	3.934	1.00	20.00	6
	ATOM	1579	O	ILE B 271	85.300	16.174	3.304	1.00	20.00	8
	ATOM	1580	N	ILE B 272	84.927	17.258	5.236	1.00	20.00	7
20	ATOM	1581	CA	ILE B 272	85.820	16.382	5.987	1.00	20.00	6
	ATOM	1582	CB	ILE B 272	85.902	16.790	7.471	1.00	20.00	6
	ATOM	1583	CG2	ILE B 272	86.623	15.703	8.277	1.00	20.00	6
	ATOM	1584	CG1	ILE B 272	86.646	18.120	7.606	1.00	20.00	6
	ATOM	1585	CD1	ILE B 272	86.553	18.723	9.011	1.00	20.00	6
25	ATOM	1586	C	ILE B 272	85.274	14.957	5.901	1.00	20.00	6
	ATOM	1587	O	ILE B 272	86.021	14.003	5.679	1.00	20.00	8
	ATOM	1588	N	TYR B 273	83.964	14.822	6.072	1.00	20.00	7
	ATOM	1589	CA	TYR B 273	83.324	13.518	6.006	1.00	20.00	6
	ATOM	1590	CB	TYR B 273	81.825	13.651	6.287	1.00	20.00	6
30	ATOM	1591	CG	TYR B 273	81.064	12.340	6.250	1.00	20.00	6
	ATOM	1592	CD1	TYR B 273	80.806	11.690	5.041	1.00	20.00	6
	ATOM	1593	CE1	TYR B 273	80.107	10.486	5.005	1.00	20.00	6
	ATOM	1594	CD2	TYR B 273	80.601	11.750	7.427	1.00	20.00	6
	ATOM	1595	CE2	TYR B 273	79.904	10.548	7.405	1.00	20.00	6
35	ATOM	1596	CZ	TYR B 273	79.659	9.922	6.192	1.00	20.00	6
	ATOM	1597	OH	TYR B 273	78.971	8.736	6.174	1.00	20.00	8
	ATOM	1598	C	TYR B 273	83.550	12.897	4.632	1.00	20.00	6
	ATOM	1599	O	TYR B 273	83.865	11.713	4.526	1.00	20.00	8
	ATOM	1600	N	GLN B 274	83.402	13.705	3.586	1.00	20.00	7
40	ATOM	1601	CA	GLN B 274	83.579	13.230	2.220	1.00	20.00	6
	ATOM	1602	CB	GLN B 274	83.176	14.322	1.222	1.00	20.00	6
	ATOM	1603	CG	GLN B 274	83.149	13.857	-0.230	1.00	20.00	6
	ATOM	1604	CD	GLN B 274	82.558	14.898	-1.169	1.00	20.00	6
	ATOM	1605	OE1	GLN B 274	82.108	15.961	-0.736	1.00	20.00	8
45	ATOM	1606	NE2	GLN B 274	82.548	14.591	-2.462	1.00	20.00	7
	ATOM	1607	C	GLN B 274	85.013	12.788	1.953	1.00	20.00	6
	ATOM	1608	O	GLN B 274	85.239	11.818	1.233	1.00	20.00	8
	ATOM	1609	N	LEU B 275	85.981	13.498	2.528	1.00	20.00	7
	ATOM	1610	CA	LEU B 275	87.389	13.143	2.333	1.00	20.00	6
50	ATOM	1611	CB	LEU B 275	88.311	14.194	2.971	1.00	20.00	6
	ATOM	1612	CG	LEU B 275	88.418	15.561	2.284	1.00	20.00	6
	ATOM	1613	CD1	LEU B 275	89.325	16.481	3.088	1.00	20.00	6
	ATOM	1614	CD2	LEU B 275	88.969	15.379	0.879	1.00	20.00	6
	ATOM	1615	C	LEU B 275	87.697	11.779	2.940	1.00	20.00	6
55	ATOM	1616	O	LEU B 275	88.430	10.981	2.354	1.00	20.00	8
	ATOM	1617	N	VAL B 276	87.125	11.519	4.112	1.00	20.00	7
	ATOM	1618	CA	VAL B 276	87.353	10.269	4.827	1.00	20.00	6
	ATOM	1619	CB	VAL B 276	87.096	10.451	6.342	1.00	20.00	6
	ATOM	1620	CG1	VAL B 276	87.376	9.148	7.082	1.00	20.00	6

	ATOM	1621	CG2	VAL	B	276	87.973	11.580	6.891	1.00	20.00	6
	ATOM	1622	C	VAL	B	276	86.504	9.089	4.336	1.00	20.00	6
	ATOM	1623	O	VAL	B	276	87.005	7.973	4.195	1.00	20.00	8
	ATOM	1624	N	ALA	B	277	85.222	9.337	4.090	1.00	20.00	7
5	ATOM	1625	CA	ALA	B	277	84.310	8.291	3.643	1.00	20.00	6
	ATOM	1626	CB	ALA	B	277	82.898	8.597	4.124	1.00	20.00	6
	ATOM	1627	C	ALA	B	277	84.315	8.115	2.130	1.00	20.00	6
	ATOM	1628	O	ALA	B	277	84.036	7.029	1.627	1.00	20.00	8
	ATOM	1629	N	GLY	B	278	84.632	9.180	1.405	1.00	20.00	7
10	ATOM	1630	CA	GLY	B	278	84.653	9.099	-0.041	1.00	20.00	6
	ATOM	1631	C	GLY	B	278	83.365	9.627	-0.644	1.00	20.00	6
	ATOM	1632	O	GLY	B	278	83.272	9.817	-1.860	1.00	20.00	8
	ATOM	1633	N	LEU	B	279	82.375	9.867	0.211	1.00	20.00	7
	ATOM	1634	CA	LEU	B	279	81.075	10.382	-0.219	1.00	20.00	6
15	ATOM	1635	CB	LEU	B	279	80.070	9.232	-0.375	1.00	20.00	6
	ATOM	1636	CG	LEU	B	279	80.342	8.114	-1.385	1.00	20.00	6
	ATOM	1637	CD1	LEU	B	279	79.311	7.009	-1.191	1.00	20.00	6
	ATOM	1638	CD2	LEU	B	279	80.291	8.660	-2.804	1.00	20.00	6
	ATOM	1639	C	LEU	B	279	80.522	11.369	0.812	1.00	20.00	6
20	ATOM	1640	O	LEU	B	279	80.750	11.218	2.007	1.00	20.00	8
	ATOM	1641	N	PRO	B	280	79.787	12.395	0.361	1.00	20.00	7
	ATOM	1642	CD	PRO	B	280	79.403	12.730	-1.020	1.00	20.00	6
	ATOM	1643	CA	PRO	B	280	79.230	13.361	1.314	1.00	20.00	6
	ATOM	1644	CB	PRO	B	280	78.569	14.397	0.407	1.00	20.00	6
25	ATOM	1645	CG	PRO	B	280	78.191	13.598	-0.802	1.00	20.00	6
	ATOM	1646	C	PRO	B	280	78.242	12.662	2.262	1.00	20.00	6
	ATOM	1647	O	PRO	B	280	77.666	11.633	1.913	1.00	20.00	8
	ATOM	1648	N	PRO	B	281	78.035	13.220	3.470	1.00	20.00	7
	ATOM	1649	CD	PRO	B	281	78.571	14.535	3.859	1.00	20.00	6
30	ATOM	1650	CA	PRO	B	281	77.145	12.701	4.520	1.00	20.00	6
	ATOM	1651	CB	PRO	B	281	77.262	13.746	5.634	1.00	20.00	6
	ATOM	1652	CG	PRO	B	281	78.546	14.450	5.344	1.00	20.00	6
	ATOM	1653	C	PRO	B	281	75.679	12.485	4.142	1.00	20.00	6
	ATOM	1654	O	PRO	B	281	75.094	11.441	4.442	1.00	20.00	8
35	ATOM	1655	N	PHE	B	282	75.088	13.487	3.504	1.00	20.00	7
	ATOM	1656	CA	PHE	B	282	73.686	13.427	3.123	1.00	20.00	6
	ATOM	1657	CB	PHE	B	282	73.006	14.734	3.531	1.00	20.00	6
	ATOM	1658	CG	PHE	B	282	73.300	15.146	4.947	1.00	20.00	6
	ATOM	1659	CD1	PHE	B	282	72.624	14.560	6.013	1.00	20.00	6
40	ATOM	1660	CD2	PHE	B	282	74.295	16.085	5.218	1.00	20.00	6
	ATOM	1661	CE1	PHE	B	282	72.934	14.902	7.331	1.00	20.00	6
	ATOM	1662	CE2	PHE	B	282	74.613	16.433	6.530	1.00	20.00	6
	ATOM	1663	CZ	PHE	B	282	73.930	15.840	7.591	1.00	20.00	6
	ATOM	1664	C	PHE	B	282	73.527	13.191	1.628	1.00	20.00	6
45	ATOM	1665	O	PHE	B	282	73.797	14.079	0.819	1.00	20.00	8
	ATOM	1666	N	ARG	B	283	73.080	11.994	1.267	1.00	20.00	7
	ATOM	1667	CA	ARG	B	283	72.888	11.635	-0.134	1.00	20.00	6
	ATOM	1668	CB	ARG	B	283	73.931	10.598	-0.559	1.00	20.00	6
	ATOM	1669	CG	ARG	B	283	75.358	10.928	-0.151	1.00	20.00	6
50	ATOM	1670	CD	ARG	B	283	76.326	9.883	-0.687	1.00	20.00	6
	ATOM	1671	NE	ARG	B	283	76.054	8.555	-0.142	1.00	20.00	7
	ATOM	1672	CZ	ARG	B	283	76.404	8.159	1.077	1.00	20.00	6
	ATOM	1673	NH1	ARG	B	283	77.047	8.986	1.893	1.00	20.00	7
	ATOM	1674	NH2	ARG	B	283	76.108	6.933	1.484	1.00	20.00	7
55	ATOM	1675	C	ARG	B	283	71.493	11.046	-0.331	1.00	20.00	6
	ATOM	1676	O	ARG	B	283	70.957	10.391	0.563	1.00	20.00	8
	ATOM	1677	N	ALA	B	284	70.911	11.276	-1.502	1.00	20.00	7
	ATOM	1678	CA	ALA	B	284	69.579	10.755	-1.796	1.00	20.00	6
	ATOM	1679	CB	ALA	B	284	68.532	11.484	-0.961	1.00	20.00	6

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      ATOM   1680  C    ALA B 284      69.278  10.921  -3.273  1.00 20.00    6
      ATOM   1681  O    ALA B 284      70.007  11.611  -3.984  1.00 20.00    8
      ATOM   1682  N    GLY B 285      68.191  10.299  -3.722  1.00 20.00    7
      ATOM   1683  CA   GLY B 285      67.807  10.360  -5.122  1.00 20.00    6
  5   ATOM   1684  C    GLY B 285      67.561  11.737  -5.707  1.00 20.00    6
      ATOM   1685  O    GLY B 285      67.775  11.955  -6.899  1.00 20.00    8
      ATOM   1686  N    ASN B 286      67.089  12.673  -4.892  1.00 20.00    7
      ATOM   1687  CA   ASN B 286      66.835  14.018  -5.386  1.00 20.00    6
      ATOM   1688  CB   ASN B 286      65.403  14.137  -5.930  1.00 20.00    6
 10   ATOM   1689  CG   ASN B 286      64.342  13.825  -4.885  1.00 20.00    6
      ATOM   1690  OD1  ASN B 286      64.292  14.450  -3.826  1.00 20.00    8
      ATOM   1691  ND2  ASN B 286      63.477  12.861  -5.190  1.00 20.00    7
      ATOM   1692  C    ASN B 286      67.076  15.042  -4.291  1.00 20.00    6
      ATOM   1693  O    ASN B 286      67.368  14.682  -3.152  1.00 20.00    8
 15   ATOM   1694  N    GLU B 287      66.955  16.317  -4.636  1.00 20.00    7
      ATOM   1695  CA   GLU B 287      67.185  17.377  -3.669  1.00 20.00    6
      ATOM   1696  CB   GLU B 287      67.181  18.738  -4.365  1.00 20.00    6
      ATOM   1697  CG   GLU B 287      68.537  19.095  -4.944  1.00 20.00    6
      ATOM   1698  CD   GLU B 287      68.524  20.385  -5.735  1.00 20.00    6
 20   ATOM   1699  OE1  GLU B 287      67.911  21.371  -5.267  1.00 20.00    8
      ATOM   1700  OE2  GLU B 287      69.144  20.410  -6.823  1.00 20.00    8
      ATOM   1701  C    GLU B 287      66.225  17.394  -2.492  1.00 20.00    6
      ATOM   1702  O    GLU B 287      66.658  17.554  -1.354  1.00 20.00    8
      ATOM   1703  N    TYR B 288      64.932  17.233  -2.753  1.00 20.00    7
 25   ATOM   1704  CA   TYR B 288      63.955  17.239  -1.670  1.00 20.00    6
      ATOM   1705  CB   TYR B 288      62.553  16.899  -2.184  1.00 20.00    6
      ATOM   1706  CG   TYR B 288      61.530  16.780  -1.070  1.00 20.00    6
      ATOM   1707  CD1  TYR B 288      60.984  17.917  -0.470  1.00 20.00    6
      ATOM   1708  CE1  TYR B 288      60.090  17.814   0.600  1.00 20.00    6
 30   ATOM   1709  CD2  TYR B 288      61.154  15.529  -0.573  1.00 20.00    6
      ATOM   1710  CE2  TYR B 288      60.265  15.414   0.498  1.00 20.00    6
      ATOM   1711  CZ   TYR B 288      59.740  16.561   1.078  1.00 20.00    6
      ATOM   1712  OH   TYR B 288      58.884  16.454   2.149  1.00 20.00    8
      ATOM   1713  C    TYR B 288      64.337  16.238  -0.587  1.00 20.00    6
 35   ATOM   1714  O    TYR B 288      64.254  16.545   0.598  1.00 20.00    8
      ATOM   1715  N    LEU B 289      64.750  15.041  -1.001  1.00 20.00    7
      ATOM   1716  CA   LEU B 289      65.137  13.989  -0.064  1.00 20.00    6
      ATOM   1717  CB   LEU B 289      65.283  12.649  -0.797  1.00 20.00    6
      ATOM   1718  CG   LEU B 289      63.984  11.985  -1.274  1.00 20.00    6
 40   ATOM   1719  CD1  LEU B 289      64.314  10.802  -2.179  1.00 20.00    6
      ATOM   1720  CD2  LEU B 289      63.160  11.530  -0.068  1.00 20.00    6
      ATOM   1721  C    LEU B 289      66.431  14.310   0.685  1.00 20.00    6
      ATOM   1722  O    LEU B 289      66.604  13.914   1.840  1.00 20.00    8
      ATOM   1723  N    ILE B 290      67.340  15.017   0.025  1.00 20.00    7
 45   ATOM   1724  CA   ILE B 290      68.597  15.390   0.658  1.00 20.00    6
      ATOM   1725  CB   ILE B 290      69.583  15.985  -0.366  1.00 20.00    6
      ATOM   1726  CG2  ILE B 290      70.778  16.609   0.359  1.00 20.00    6
      ATOM   1727  CG1  ILE B 290      70.046  14.887  -1.330  1.00 20.00    6
      ATOM   1728  CD1  ILE B 290      70.844  15.398  -2.518  1.00 20.00    6
 50   ATOM   1729  C    ILE B 290      68.307  16.424   1.743  1.00 20.00    6
      ATOM   1730  O    ILE B 290      68.807  16.317   2.862  1.00 20.00    8
      ATOM   1731  N    PHE B 291      67.491  17.420   1.411  1.00 20.00    7
      ATOM   1732  CA   PHE B 291      67.143  18.462   2.372  1.00 20.00    6
      ATOM   1733  CB   PHE B 291      66.222  19.502   1.731  1.00 20.00    6
 55   ATOM   1734  CG   PHE B 291      66.869  20.289   0.628  1.00 20.00    6
      ATOM   1735  CD1  PHE B 291      68.255  20.420   0.568  1.00 20.00    6
      ATOM   1736  CD2  PHE B 291      66.094  20.931  -0.332  1.00 20.00    6
      ATOM   1737  CE1  PHE B 291      68.859  21.182  -0.435  1.00 20.00    6
      ATOM   1738  CE2  PHE B 291      66.690  21.697  -1.340  1.00 20.00    6
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	ATOM	1739	CZ	PHE	B	291	68.074	21.822	-1.390	1.00	20.00	6
	ATOM	1740	C	PHE	B	291	66.453	17.848	3.576	1.00	20.00	6
	ATOM	1741	O	PHE	B	291	66.664	18.262	4.718	1.00	20.00	8
	ATOM	1742	N	GLN	B	292	65.629	16.847	3.303	1.00	20.00	7
5	ATOM	1743	CA	GLN	B	292	64.887	16.154	4.341	1.00	20.00	6
	ATOM	1744	CB	GLN	B	292	64.006	15.090	3.687	1.00	20.00	6
	ATOM	1745	CG	GLN	B	292	62.953	14.486	4.572	1.00	20.00	6
	ATOM	1746	CD	GLN	B	292	61.895	13.750	3.763	1.00	20.00	6
	ATOM	1747	OE1	GLN	B	292	62.208	12.835	2.997	1.00	20.00	8
10	ATOM	1748	NE2	GLN	B	292	60.637	14.155	3.924	1.00	20.00	7
	ATOM	1749	C	GLN	B	292	65.865	15.522	5.329	1.00	20.00	6
	ATOM	1750	O	GLN	B	292	65.689	15.630	6.540	1.00	20.00	8
	ATOM	1751	N	LYS	B	293	66.907	14.875	4.812	1.00	20.00	7
	ATOM	1752	CA	LYS	B	293	67.898	14.244	5.683	1.00	20.00	6
15	ATOM	1753	CB	LYS	B	293	68.850	13.372	4.865	1.00	20.00	6
	ATOM	1754	CG	LYS	B	293	68.197	12.135	4.278	1.00	20.00	6
	ATOM	1755	CD	LYS	B	293	69.217	11.260	3.554	1.00	20.00	6
	ATOM	1756	CE	LYS	B	293	68.575	9.972	3.051	1.00	20.00	6
	ATOM	1757	NZ	LYS	B	293	69.553	9.099	2.339	1.00	20.00	7
20	ATOM	1758	C	LYS	B	293	68.698	15.287	6.468	1.00	20.00	6
	ATOM	1759	O	LYS	B	293	69.044	15.074	7.634	1.00	20.00	8
	ATOM	1760	N	ILE	B	294	68.989	16.411	5.827	1.00	20.00	7
	ATOM	1761	CA	ILE	B	294	69.745	17.480	6.472	1.00	20.00	6
	ATOM	1762	CB	ILE	B	294	70.026	18.632	5.474	1.00	20.00	6
25	ATOM	1763	CG2	ILE	B	294	70.489	19.881	6.223	1.00	20.00	6
	ATOM	1764	CG1	ILE	B	294	71.070	18.178	4.443	1.00	20.00	6
	ATOM	1765	CD1	ILE	B	294	71.266	19.159	3.303	1.00	20.00	6
	ATOM	1766	C	ILE	B	294	69.035	18.045	7.712	1.00	20.00	6
	ATOM	1767	O	ILE	B	294	69.618	18.091	8.798	1.00	20.00	8
30	ATOM	1768	N	ILE	B	295	67.783	18.467	7.564	1.00	20.00	7
	ATOM	1769	CA	ILE	B	295	67.068	19.037	8.707	1.00	20.00	6
	ATOM	1770	CB	ILE	B	295	65.710	19.647	8.300	1.00	20.00	6
	ATOM	1771	CG2	ILE	B	295	65.927	20.749	7.265	1.00	20.00	6
	ATOM	1772	CG1	ILE	B	295	64.784	18.559	7.762	1.00	20.00	6
35	ATOM	1773	CD1	ILE	B	295	63.356	19.037	7.558	1.00	20.00	6
	ATOM	1774	C	ILE	B	295	66.831	18.045	9.842	1.00	20.00	6
	ATOM	1775	O	ILE	B	295	66.540	18.447	10.967	1.00	20.00	8
	ATOM	1776	N	LYS	B	296	66.956	16.753	9.550	1.00	20.00	7
	ATOM	1777	CA	LYS	B	296	66.765	15.724	10.569	1.00	20.00	6
40	ATOM	1778	CB	LYS	B	296	65.907	14.576	10.019	1.00	20.00	6
	ATOM	1779	CG	LYS	B	296	64.535	15.010	9.538	1.00	20.00	6
	ATOM	1780	CD	LYS	B	296	63.739	13.851	8.951	1.00	20.00	6
	ATOM	1781	CE	LYS	B	296	63.296	12.873	10.025	1.00	20.00	6
	ATOM	1782	NZ	LYS	B	296	62.375	11.828	9.482	1.00	20.00	7
45	ATOM	1783	C	LYS	B	296	68.116	15.176	11.018	1.00	20.00	6
	ATOM	1784	O	LYS	B	296	68.178	14.261	11.838	1.00	20.00	8
	ATOM	1785	N	LEU	B	297	69.190	15.746	10.474	1.00	20.00	7
	ATOM	1786	CA	LEU	B	297	70.551	15.320	10.791	1.00	20.00	6
	ATOM	1787	CB	LEU	B	297	70.911	15.680	12.236	1.00	20.00	6
50	ATOM	1788	CG	LEU	B	297	72.398	15.538	12.585	1.00	20.00	6
	ATOM	1789	CD1	LEU	B	297	73.215	16.555	11.771	1.00	20.00	6
	ATOM	1790	CD2	LEU	B	297	72.605	15.762	14.076	1.00	20.00	6
	ATOM	1791	C	LEU	B	297	70.635	13.810	10.592	1.00	20.00	6
	ATOM	1792	O	LEU	B	297	71.150	13.080	11.434	1.00	20.00	8
55	ATOM	1793	N	GLU	B	298	70.128	13.351	9.456	1.00	20.00	7
	ATOM	1794	CA	GLU	B	298	70.115	11.934	9.148	1.00	20.00	6
	ATOM	1795	CB	GLU	B	298	68.817	11.597	8.416	1.00	20.00	6
	ATOM	1796	CG	GLU	B	298	68.568	10.123	8.233	1.00	20.00	6
	ATOM	1797	CD	GLU	B	298	67.254	9.858	7.535	1.00	20.00	6

	ATOM	1798	OE1	GLU	B	298	66.214	10.331	8.043	1.00	20.00	8
	ATOM	1799	OE2	GLU	B	298	67.261	9.185	6.484	1.00	20.00	8
	ATOM	1800	C	GLU	B	298	71.309	11.446	8.332	1.00	20.00	6
	ATOM	1801	O	GLU	B	298	71.310	11.523	7.104	1.00	20.00	8
5	ATOM	1802	N	TYR	B	299	72.325	10.946	9.027	1.00	20.00	7
	ATOM	1803	CA	TYR	B	299	73.519	10.405	8.390	1.00	20.00	6
	ATOM	1804	CB	TYR	B	299	74.444	11.521	7.880	1.00	20.00	6
	ATOM	1805	CG	TYR	B	299	75.330	12.130	8.953	1.00	20.00	6
	ATOM	1806	CD1	TYR	B	299	74.796	12.962	9.935	1.00	20.00	6
10	ATOM	1807	CE1	TYR	B	299	75.589	13.482	10.951	1.00	20.00	6
	ATOM	1808	CD2	TYR	B	299	76.692	11.833	9.013	1.00	20.00	6
	ATOM	1809	CE2	TYR	B	299	77.499	12.352	10.032	1.00	20.00	6
	ATOM	1810	CZ	TYR	B	299	76.935	13.173	10.995	1.00	20.00	6
	ATOM	1811	OH	TYR	B	299	77.701	13.687	12.006	1.00	20.00	8
15	ATOM	1812	C	TYR	B	299	74.245	9.600	9.456	1.00	20.00	6
	ATOM	1813	O	TYR	B	299	73.913	9.688	10.631	1.00	20.00	8
	ATOM	1814	N	ASP	B	300	75.229	8.808	9.052	1.00	20.00	7
	ATOM	1815	CA	ASP	B	300	75.991	8.030	10.016	1.00	20.00	6
	ATOM	1816	CB	ASP	B	300	75.291	6.700	10.304	1.00	20.00	6
20	ATOM	1817	CG	ASP	B	300	74.898	5.968	9.048	1.00	20.00	6
	ATOM	1818	OD1	ASP	B	300	75.806	5.594	8.274	1.00	20.00	8
	ATOM	1819	OD2	ASP	B	300	73.681	5.771	8.832	1.00	20.00	8
	ATOM	1820	C	ASP	B	300	77.397	7.799	9.488	1.00	20.00	6
	ATOM	1821	O	ASP	B	300	77.651	7.976	8.297	1.00	20.00	8
25	ATOM	1822	N	PHE	B	301	78.307	7.417	10.378	1.00	20.00	7
	ATOM	1823	CA	PHE	B	301	79.695	7.186	9.996	1.00	20.00	6
	ATOM	1824	CB	PHE	B	301	80.655	7.664	11.093	1.00	20.00	6
	ATOM	1825	CG	PHE	B	301	80.488	9.103	11.481	1.00	20.00	6
	ATOM	1826	CD1	PHE	B	301	79.493	9.487	12.370	1.00	20.00	6
30	ATOM	1827	CD2	PHE	B	301	81.346	10.075	10.970	1.00	20.00	6
	ATOM	1828	CE1	PHE	B	301	79.352	10.823	12.750	1.00	20.00	6
	ATOM	1829	CE2	PHE	B	301	81.214	11.408	11.342	1.00	20.00	6
	ATOM	1830	CZ	PHE	B	301	80.215	11.783	12.235	1.00	20.00	6
	ATOM	1831	C	PHE	B	301	80.009	5.722	9.744	1.00	20.00	6
35	ATOM	1832	O	PHE	B	301	79.506	4.839	10.442	1.00	20.00	8
	ATOM	1833	N	PRO	B	302	80.842	5.440	8.732	1.00	20.00	7
	ATOM	1834	CD	PRO	B	302	81.330	6.316	7.654	1.00	20.00	6
	ATOM	1835	CA	PRO	B	302	81.191	4.044	8.466	1.00	20.00	6
	ATOM	1836	CB	PRO	B	302	81.838	4.105	7.084	1.00	20.00	6
40	ATOM	1837	CG	PRO	B	302	82.425	5.479	7.046	1.00	20.00	6
	ATOM	1838	C	PRO	B	302	82.168	3.629	9.569	1.00	20.00	6
	ATOM	1839	O	PRO	B	302	82.887	4.469	10.111	1.00	20.00	8
	ATOM	1840	N	ALA	B	303	82.185	2.345	9.908	1.00	20.00	7
	ATOM	1841	CA	ALA	B	303	83.052	1.836	10.968	1.00	20.00	6
45	ATOM	1842	CB	ALA	B	303	82.993	0.310	10.987	1.00	20.00	6
	ATOM	1843	C	ALA	B	303	84.513	2.294	10.939	1.00	20.00	6
	ATOM	1844	O	ALA	B	303	85.078	2.637	11.979	1.00	20.00	8
	ATOM	1845	N	ALA	B	304	85.121	2.306	9.756	1.00	20.00	7
	ATOM	1846	CA	ALA	B	304	86.527	2.684	9.605	1.00	20.00	6
50	ATOM	1847	CB	ALA	B	304	86.971	2.423	8.165	1.00	20.00	6
	ATOM	1848	C	ALA	B	304	86.894	4.119	10.001	1.00	20.00	6
	ATOM	1849	O	ALA	B	304	87.983	4.367	10.520	1.00	20.00	8
	ATOM	1850	N	PHE	B	305	85.985	5.053	9.742	1.00	20.00	7
	ATOM	1851	CA	PHE	B	305	86.183	6.473	10.034	1.00	20.00	6
55	ATOM	1852	CB	PHE	B	305	84.822	7.115	10.312	1.00	20.00	6
	ATOM	1853	CG	PHE	B	305	84.705	8.522	9.815	1.00	20.00	6
	ATOM	1854	CD1	PHE	B	305	85.303	9.572	10.502	1.00	20.00	6
	ATOM	1855	CD2	PHE	B	305	84.003	8.800	8.646	1.00	20.00	6
	ATOM	1856	CE1	PHE	B	305	85.202	10.881	10.033	1.00	20.00	6

	ATOM	1857	CE2	PHE	B	305	83.896	10.106	8.167	1.00	20.00	6
	ATOM	1858	CZ	PHE	B	305	84.496	11.147	8.862	1.00	20.00	6
	ATOM	1859	C	PHE	B	305	87.153	6.789	11.182	1.00	20.00	6
	ATOM	1860	O	PHE	B	305	86.964	6.342	12.312	1.00	20.00	8
5	ATOM	1861	N	PHE	B	306	88.190	7.565	10.883	1.00	20.00	7
	ATOM	1862	CA	PHE	B	306	89.176	7.945	11.894	1.00	20.00	6
	ATOM	1863	CB	PHE	B	306	90.179	8.936	11.295	1.00	20.00	6
	ATOM	1864	CG	PHE	B	306	90.695	8.531	9.940	1.00	20.00	6
	ATOM	1865	CD1	PHE	B	306	91.292	7.284	9.747	1.00	20.00	6
10	ATOM	1866	CD2	PHE	B	306	90.588	9.395	8.853	1.00	20.00	6
	ATOM	1867	CE1	PHE	B	306	91.774	6.906	8.490	1.00	20.00	6
	ATOM	1868	CE2	PHE	B	306	91.067	9.027	7.590	1.00	20.00	6
	ATOM	1869	CZ	PHE	B	306	91.662	7.780	7.408	1.00	20.00	6
	ATOM	1870	C	PHE	B	306	88.445	8.575	13.086	1.00	20.00	6
15	ATOM	1871	O	PHE	B	306	87.731	9.566	12.936	1.00	20.00	8
	ATOM	1872	N	PRO	B	307	88.614	7.995	14.288	1.00	20.00	7
	ATOM	1873	CD	PRO	B	307	89.482	6.834	14.555	1.00	20.00	6
	ATOM	1874	CA	PRO	B	307	87.983	8.459	15.530	1.00	20.00	6
	ATOM	1875	CB	PRO	B	307	88.748	7.691	16.606	1.00	20.00	6
20	ATOM	1876	CG	PRO	B	307	89.018	6.388	15.928	1.00	20.00	6
	ATOM	1877	C	PRO	B	307	87.986	9.965	15.784	1.00	20.00	6
	ATOM	1878	O	PRO	B	307	86.936	10.565	16.025	1.00	20.00	8
	ATOM	1879	N	LYS	B	308	89.162	10.575	15.745	1.00	20.00	7
	ATOM	1880	CA	LYS	B	308	89.260	12.004	15.992	1.00	20.00	6
25	ATOM	1881	CB	LYS	B	308	90.728	12.405	16.149	1.00	20.00	6
	ATOM	1882	CG	LYS	B	308	91.338	11.805	17.410	1.00	20.00	6
	ATOM	1883	CD	LYS	B	308	92.806	12.140	17.591	1.00	20.00	6
	ATOM	1884	CE	LYS	B	308	93.339	11.457	18.847	1.00	20.00	6
	ATOM	1885	NZ	LYS	B	308	94.816	11.573	18.985	1.00	20.00	7
30	ATOM	1886	C	LYS	B	308	88.572	12.808	14.894	1.00	20.00	6
	ATOM	1887	O	LYS	B	308	87.985	13.855	15.167	1.00	20.00	8
	ATOM	1888	N	ALA	B	309	88.629	12.318	13.659	1.00	20.00	7
	ATOM	1889	CA	ALA	B	309	87.967	13.011	12.557	1.00	20.00	6
	ATOM	1890	CB	ALA	B	309	88.328	12.369	11.231	1.00	20.00	6
35	ATOM	1891	C	ALA	B	309	86.460	12.936	12.787	1.00	20.00	6
	ATOM	1892	O	ALA	B	309	85.735	13.903	12.552	1.00	20.00	8
	ATOM	1893	N	ARG	B	310	85.986	11.780	13.246	1.00	20.00	7
	ATOM	1894	CA	ARG	B	310	84.561	11.619	13.513	1.00	20.00	6
	ATOM	1895	CB	ARG	B	310	84.246	10.194	13.979	1.00	20.00	6
40	ATOM	1896	CG	ARG	B	310	82.844	10.069	14.561	1.00	20.00	6
	ATOM	1897	CD	ARG	B	310	82.408	8.632	14.789	1.00	20.00	6
	ATOM	1898	NE	ARG	B	310	81.060	8.593	15.355	1.00	20.00	7
	ATOM	1899	CZ	ARG	B	310	80.259	7.532	15.328	1.00	20.00	6
	ATOM	1900	NH1	ARG	B	310	80.665	6.401	14.759	1.00	20.00	7
45	ATOM	1901	NH2	ARG	B	310	79.048	7.601	15.867	1.00	20.00	7
	ATOM	1902	C	ARG	B	310	84.110	12.613	14.583	1.00	20.00	6
	ATOM	1903	O	ARG	B	310	83.080	13.274	14.436	1.00	20.00	8
	ATOM	1904	N	ASP	B	311	84.876	12.707	15.666	1.00	20.00	7
	ATOM	1905	CA	ASP	B	311	84.535	13.629	16.740	1.00	20.00	6
50	ATOM	1906	CB	ASP	B	311	85.574	13.555	17.864	1.00	20.00	6
	ATOM	1907	CG	ASP	B	311	85.260	14.505	19.006	1.00	20.00	6
	ATOM	1908	OD1	ASP	B	311	85.782	15.636	19.010	1.00	20.00	8
	ATOM	1909	OD2	ASP	B	311	84.480	14.124	19.901	1.00	20.00	8
	ATOM	1910	C	ASP	B	311	84.445	15.054	16.198	1.00	20.00	6
55	ATOM	1911	O	ASP	B	311	83.539	15.800	16.564	1.00	20.00	8
	ATOM	1912	N	LEU	B	312	85.371	15.423	15.313	1.00	20.00	7
	ATOM	1913	CA	LEU	B	312	85.362	16.769	14.736	1.00	20.00	6
	ATOM	1914	CB	LEU	B	312	86.604	16.999	13.869	1.00	20.00	6
	ATOM	1915	CG	LEU	B	312	86.662	18.329	13.099	1.00	20.00	6

	ATOM	1916	CD1	LEU	B	312	86.424	19.510	14.037	1.00	20.00	6
	ATOM	1917	CD2	LEU	B	312	88.018	18.450	12.414	1.00	20.00	6
	ATOM	1918	C	LEU	B	312	84.112	17.008	13.899	1.00	20.00	6
	ATOM	1919	O	LEU	B	312	83.456	18.039	14.035	1.00	20.00	8
5	ATOM	1920	N	VAL	B	313	83.786	16.051	13.033	1.00	20.00	7
	ATOM	1921	CA	VAL	B	313	82.611	16.171	12.183	1.00	20.00	6
	ATOM	1922	CB	VAL	B	313	82.464	14.942	11.255	1.00	20.00	6
	ATOM	1923	CG1	VAL	B	313	81.121	14.973	10.551	1.00	20.00	6
	ATOM	1924	CG2	VAL	B	313	83.595	14.935	10.228	1.00	20.00	6
10	ATOM	1925	C	VAL	B	313	81.354	16.315	13.036	1.00	20.00	6
	ATOM	1926	O	VAL	B	313	80.467	17.111	12.716	1.00	20.00	8
	ATOM	1927	N	GLU	B	314	81.282	15.559	14.129	1.00	20.00	7
	ATOM	1928	CA	GLU	B	314	80.122	15.634	15.010	1.00	20.00	6
	ATOM	1929	CB	GLU	B	314	80.191	14.545	16.084	1.00	20.00	6
15	ATOM	1930	CG	GLU	B	314	80.160	13.131	15.521	1.00	20.00	6
	ATOM	1931	CD	GLU	B	314	80.222	12.073	16.603	1.00	20.00	6
	ATOM	1932	OE1	GLU	B	314	81.033	12.227	17.542	1.00	20.00	8
	ATOM	1933	OE2	GLU	B	314	79.469	11.081	16.512	1.00	20.00	8
	ATOM	1934	C	GLU	B	314	80.035	17.005	15.664	1.00	20.00	6
20	ATOM	1935	O	GLU	B	314	78.960	17.443	16.059	1.00	20.00	8
	ATOM	1936	N	LYS	B	315	81.165	17.690	15.776	1.00	20.00	7
	ATOM	1937	CA	LYS	B	315	81.154	19.010	16.383	1.00	20.00	6
	ATOM	1938	CB	LYS	B	315	82.448	19.240	17.168	1.00	20.00	6
	ATOM	1939	CG	LYS	B	315	82.460	18.478	18.493	1.00	20.00	6
25	ATOM	1940	CD	LYS	B	315	83.803	18.529	19.198	1.00	20.00	6
	ATOM	1941	CE	LYS	B	315	83.749	17.825	20.552	1.00	20.00	6
	ATOM	1942	NZ	LYS	B	315	82.829	18.505	21.506	1.00	20.00	7
	ATOM	1943	C	LYS	B	315	80.934	20.104	15.343	1.00	20.00	6
	ATOM	1944	O	LYS	B	315	80.855	21.282	15.686	1.00	20.00	8
30	ATOM	1945	N	LEU	B	316	80.819	19.706	14.075	1.00	20.00	7
	ATOM	1946	CA	LEU	B	316	80.577	20.649	12.979	1.00	20.00	6
	ATOM	1947	CB	LEU	B	316	81.608	20.450	11.863	1.00	20.00	6
	ATOM	1948	CG	LEU	B	316	83.044	20.833	12.240	1.00	20.00	6
	ATOM	1949	CD1	LEU	B	316	84.011	20.365	11.156	1.00	20.00	6
35	ATOM	1950	CD2	LEU	B	316	83.124	22.351	12.434	1.00	20.00	6
	ATOM	1951	C	LEU	B	316	79.164	20.469	12.415	1.00	20.00	6
	ATOM	1952	O	LEU	B	316	78.464	21.448	12.148	1.00	20.00	8
	ATOM	1953	N	LEU	B	317	78.746	19.220	12.230	1.00	20.00	7
	ATOM	1954	CA	LEU	B	317	77.403	18.962	11.721	1.00	20.00	6
40	ATOM	1955	CB	LEU	B	317	77.343	17.605	11.012	1.00	20.00	6
	ATOM	1956	CG	LEU	B	317	78.335	17.445	9.852	1.00	20.00	6
	ATOM	1957	CD1	LEU	B	317	78.091	16.111	9.143	1.00	20.00	6
	ATOM	1958	CD2	LEU	B	317	78.182	18.603	8.866	1.00	20.00	6
	ATOM	1959	C	LEU	B	317	76.435	19.000	12.899	1.00	20.00	6
45	ATOM	1960	O	LEU	B	317	75.979	17.966	13.398	1.00	20.00	8
	ATOM	1961	N	VAL	B	318	76.156	20.215	13.354	1.00	20.00	7
	ATOM	1962	CA	VAL	B	318	75.251	20.451	14.467	1.00	20.00	6
	ATOM	1963	CB	VAL	B	318	75.981	21.164	15.625	1.00	20.00	6
	ATOM	1964	CG1	VAL	B	318	75.007	21.461	16.759	1.00	20.00	6
50	ATOM	1965	CG2	VAL	B	318	77.136	20.300	16.115	1.00	20.00	6
	ATOM	1966	C	VAL	B	318	74.140	21.344	13.936	1.00	20.00	6
	ATOM	1967	O	VAL	B	318	74.410	22.386	13.333	1.00	20.00	8
	ATOM	1968	N	LEU	B	319	72.892	20.941	14.153	1.00	20.00	7
	ATOM	1969	CA	LEU	B	319	71.758	21.717	13.663	1.00	20.00	6
55	ATOM	1970	CB	LEU	B	319	70.444	21.056	14.093	1.00	20.00	6
	ATOM	1971	CG	LEU	B	319	70.211	19.647	13.533	1.00	20.00	6
	ATOM	1972	CD1	LEU	B	319	68.883	19.098	14.060	1.00	20.00	6
	ATOM	1973	CD2	LEU	B	319	70.211	19.688	12.000	1.00	20.00	6
	ATOM	1974	C	LEU	B	319	71.794	23.173	14.119	1.00	20.00	6

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      ATOM   1975   O    LEU B 319      71.591  24.082  13.317  1.00 20.00   8
      ATOM   1976   N    ASP B 320      72.052  23.394  15.405  1.00 20.00   7
      ATOM   1977   CA   ASP B 320      72.119  24.745  15.958  1.00 20.00   6
      ATOM   1978   CB   ASP B 320      72.091  24.687  17.490  1.00 20.00   6
  5   ATOM   1979   CG   ASP B 320      72.058  26.061  18.129  1.00 20.00   6
      ATOM   1980   OD1  ASP B 320      72.506  27.036  17.492  1.00 20.00   8
      ATOM   1981   OD2  ASP B 320      71.595  26.166  19.284  1.00 20.00   8
      ATOM   1982   C    ASP B 320      73.415  25.419  15.492  1.00 20.00   6
      ATOM   1983   O    ASP B 320      74.496  25.089  15.965  1.00 20.00   8
 10   ATOM   1984   N    ALA B 321      73.294  26.372  14.576  1.00 20.00   7
      ATOM   1985   CA   ALA B 321      74.450  27.078  14.028  1.00 20.00   6
      ATOM   1986   CB   ALA B 321      73.982  28.109  13.006  1.00 20.00   6
      ATOM   1987   C    ALA B 321      75.359  27.747  15.065  1.00 20.00   6
      ATOM   1988   O    ALA B 321      76.535  27.992  14.790  1.00 20.00   8
 15   ATOM   1989   N    THR B 322      74.829  28.035  16.252  1.00 20.00   7
      ATOM   1990   CA   THR B 322      75.631  28.681  17.292  1.00 20.00   6
      ATOM   1991   CB   THR B 322      74.755  29.491  18.271  1.00 20.00   6
      ATOM   1992   OG1  THR B 322      73.879  28.605  18.973  1.00 20.00   8
      ATOM   1993   CG2  THR B 322      73.928  30.527  17.519  1.00 20.00   6
 20   ATOM   1994   C    THR B 322      76.437  27.684  18.108  1.00 20.00   6
      ATOM   1995   O    THR B 322      77.166  28.071  19.019  1.00 20.00   8
      ATOM   1996   N    LYS B 323      76.312  26.401  17.786  1.00 20.00   7
      ATOM   1997   CA   LYS B 323      77.048  25.378  18.517  1.00 20.00   6
      ATOM   1998   CB   LYS B 323      76.080  24.378  19.155  1.00 20.00   6
 25   ATOM   1999   CG   LYS B 323      75.180  24.992  20.209  1.00 20.00   6
      ATOM   2000   CD   LYS B 323      74.356  23.931  20.924  1.00 20.00   6
      ATOM   2001   CE   LYS B 323      73.406  24.574  21.927  1.00 20.00   6
      ATOM   2002   NZ   LYS B 323      74.144  25.514  22.818  1.00 20.00   7
      ATOM   2003   C    LYS B 323      78.066  24.631  17.664  1.00 20.00   6
 30   ATOM   2004   O    LYS B 323      78.520  23.557  18.040  1.00 20.00   8
      ATOM   2005   N    ARG B 324      78.427  25.195  16.517  1.00 20.00   7
      ATOM   2006   CA   ARG B 324      79.408  24.545  15.656  1.00 20.00   6
      ATOM   2007   CB   ARG B 324      79.108  24.834  14.186  1.00 20.00   6
      ATOM   2008   CG   ARG B 324      77.824  24.177  13.728  1.00 20.00   6
 35   ATOM   2009   CD   ARG B 324      77.468  24.505  12.297  1.00 20.00   6
      ATOM   2010   NE   ARG B 324      76.060  24.202  12.069  1.00 20.00   7
      ATOM   2011   CZ   ARG B 324      75.277  24.873  11.233  1.00 20.00   6
      ATOM   2012   NH1  ARG B 324      75.764  25.888  10.523  1.00 20.00   7
      ATOM   2013   NH2  ARG B 324      73.992  24.551  11.140  1.00 20.00   7
 40   ATOM   2014   C    ARG B 324      80.811  25.011  16.008  1.00 20.00   6
      ATOM   2015   O    ARG B 324      81.070  26.212  16.131  1.00 20.00   8
      ATOM   2016   N    LEU B 325      81.711  24.049  16.180  1.00 20.00   7
      ATOM   2017   CA   LEU B 325      83.090  24.350  16.520  1.00 20.00   6
      ATOM   2018   CB   LEU B 325      83.913  23.061  16.550  1.00 20.00   6
 45   ATOM   2019   CG   LEU B 325      85.274  23.123  17.241  1.00 20.00   6
      ATOM   2020   CD1  LEU B 325      85.093  23.591  18.682  1.00 20.00   6
      ATOM   2021   CD2  LEU B 325      85.922  21.741  17.209  1.00 20.00   6
      ATOM   2022   C    LEU B 325      83.656  25.310  15.481  1.00 20.00   6
      ATOM   2023   O    LEU B 325      83.649  25.015  14.282  1.00 20.00   8
 50   ATOM   2024   N    GLY B 326      84.139  26.461  15.946  1.00 20.00   7
      ATOM   2025   CA   GLY B 326      84.697  27.449  15.040  1.00 20.00   6
      ATOM   2026   C    GLY B 326      83.857  28.711  14.932  1.00 20.00   6
      ATOM   2027   O    GLY B 326      84.369  29.757  14.529  1.00 20.00   8
      ATOM   2028   N    CYS B 327      82.575  28.632  15.286  1.00 20.00   7
 55   ATOM   2029   CA   CYS B 327      81.714  29.806  15.200  1.00 20.00   6
      ATOM   2030   CB   CYS B 327      80.233  29.404  15.183  1.00 20.00   6
      ATOM   2031   SG   CYS B 327      79.534  28.915  16.774  1.00 20.00  16
      ATOM   2032   C    CYS B 327      81.976  30.772  16.353  1.00 20.00   6
      ATOM   2033   O    CYS B 327      82.565  30.410  17.371  1.00 20.00   8
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	ATOM	2034	N	GLU	B	328	81.523	32.005	16.178	1.00	20.00	7
	ATOM	2035	CA	GLU	B	328	81.714	33.052	17.167	1.00	20.00	6
	ATOM	2036	CB	GLU	B	328	81.087	34.348	16.632	1.00	20.00	6
	ATOM	2037	CG	GLU	B	328	81.734	34.772	15.300	1.00	20.00	6
5	ATOM	2038	CD	GLU	B	328	80.962	35.842	14.539	1.00	20.00	6
	ATOM	2039	OE1	GLU	B	328	79.738	35.676	14.343	1.00	20.00	8
	ATOM	2040	OE2	GLU	B	328	81.588	36.840	14.116	1.00	20.00	8
	ATOM	2041	C	GLU	B	328	81.187	32.701	18.560	1.00	20.00	6
	ATOM	2042	O	GLU	B	328	81.850	32.983	19.562	1.00	20.00	8
10	ATOM	2043	N	GLU	B	329	80.016	32.073	18.631	1.00	20.00	7
	ATOM	2044	CA	GLU	B	329	79.449	31.714	19.926	1.00	20.00	6
	ATOM	2045	CB	GLU	B	329	77.991	31.263	19.782	1.00	20.00	6
	ATOM	2046	CG	GLU	B	329	77.028	32.355	19.315	1.00	20.00	6
	ATOM	2047	CD	GLU	B	329	77.055	32.575	17.813	1.00	20.00	6
15	ATOM	2048	OE1	GLU	B	329	77.859	31.910	17.120	1.00	20.00	8
	ATOM	2049	OE2	GLU	B	329	76.267	33.413	17.323	1.00	20.00	8
	ATOM	2050	C	GLU	B	329	80.264	30.616	20.605	1.00	20.00	6
	ATOM	2051	O	GLU	B	329	80.182	30.436	21.819	1.00	20.00	8
	ATOM	2052	N	MET	B	330	81.040	29.878	19.816	1.00	20.00	7
20	ATOM	2053	CA	MET	B	330	81.880	28.813	20.354	1.00	20.00	6
	ATOM	2054	CB	MET	B	330	81.872	27.600	19.419	1.00	20.00	6
	ATOM	2055	CG	MET	B	330	80.552	26.822	19.436	1.00	20.00	6
	ATOM	2056	SD	MET	B	330	80.117	26.254	21.104	1.00	20.00	16
	ATOM	2057	CE	MET	B	330	81.265	24.895	21.311	1.00	20.00	6
25	ATOM	2058	C	MET	B	330	83.302	29.330	20.547	1.00	20.00	6
	ATOM	2059	O	MET	B	330	84.236	28.564	20.754	1.00	20.00	8
	ATOM	2060	N	GLU	B	331	83.443	30.647	20.471	1.00	20.00	7
	ATOM	2061	CA	GLU	B	331	84.716	31.338	20.656	1.00	20.00	6
	ATOM	2062	CB	GLU	B	331	85.357	30.921	21.987	1.00	20.00	6
30	ATOM	2063	CG	GLU	B	331	84.371	30.886	23.163	1.00	20.00	6
	ATOM	2064	CD	GLU	B	331	83.478	32.127	23.270	1.00	20.00	6
	ATOM	2065	OE1	GLU	B	331	82.483	32.064	24.021	1.00	20.00	8
	ATOM	2066	OE2	GLU	B	331	83.759	33.159	22.625	1.00	20.00	8
	ATOM	2067	C	GLU	B	331	85.742	31.247	19.523	1.00	20.00	6
35	ATOM	2068	O	GLU	B	331	86.952	31.264	19.761	1.00	20.00	8
	ATOM	2069	N	GLY	B	332	85.257	31.137	18.292	1.00	20.00	7
	ATOM	2070	CA	GLY	B	332	86.145	31.159	17.140	1.00	20.00	6
	ATOM	2071	C	GLY	B	332	87.036	30.014	16.721	1.00	20.00	6
	ATOM	2072	O	GLY	B	332	86.881	28.863	17.142	1.00	20.00	8
40	ATOM	2073	N	TYR	B	333	88.002	30.366	15.875	1.00	20.00	7
	ATOM	2074	CA	TYR	B	333	88.939	29.413	15.307	1.00	20.00	6
	ATOM	2075	CB	TYR	B	333	89.625	30.053	14.093	1.00	20.00	6
	ATOM	2076	CG	TYR	B	333	88.724	30.031	12.877	1.00	20.00	6
	ATOM	2077	CD1	TYR	B	333	88.774	28.966	11.974	1.00	20.00	6
45	ATOM	2078	CE1	TYR	B	333	87.872	28.869	10.919	1.00	20.00	6
	ATOM	2079	CD2	TYR	B	333	87.747	31.011	12.686	1.00	20.00	6
	ATOM	2080	CE2	TYR	B	333	86.831	30.923	11.624	1.00	20.00	6
	ATOM	2081	CZ	TYR	B	333	86.903	29.845	10.751	1.00	20.00	6
	ATOM	2082	OH	TYR	B	333	86.001	29.719	9.724	1.00	20.00	8
50	ATOM	2083	C	TYR	B	333	89.958	28.800	16.252	1.00	20.00	6
	ATOM	2084	O	TYR	B	333	90.473	27.721	15.971	1.00	20.00	8
	ATOM	2085	N	GLY	B	334	90.242	29.469	17.369	1.00	20.00	7
	ATOM	2086	CA	GLY	B	334	91.193	28.921	18.327	1.00	20.00	6
	ATOM	2087	C	GLY	B	334	90.803	27.504	18.741	1.00	20.00	6
55	ATOM	2088	O	GLY	B	334	91.577	26.564	18.558	1.00	20.00	8
	ATOM	2089	N	PRO	B	335	89.603	27.320	19.309	1.00	20.00	7
	ATOM	2090	CD	PRO	B	335	88.703	28.372	19.814	1.00	20.00	6
	ATOM	2091	CA	PRO	B	335	89.145	25.991	19.731	1.00	20.00	6
	ATOM	2092	CB	PRO	B	335	87.759	26.275	20.303	1.00	20.00	6

	ATOM	2093	CG	PRO	B	335	87.925	27.644	20.883	1.00	20.00	6
	ATOM	2094	C	PRO	B	335	89.104	24.986	18.573	1.00	20.00	6
	ATOM	2095	O	PRO	B	335	89.406	23.808	18.756	1.00	20.00	8
	ATOM	2096	N	LEU	B	336	88.727	25.450	17.382	1.00	20.00	7
5	ATOM	2097	CA	LEU	B	336	88.666	24.567	16.219	1.00	20.00	6
	ATOM	2098	CB	LEU	B	336	88.031	25.292	15.023	1.00	20.00	6
	ATOM	2099	CG	LEU	B	336	88.051	24.581	13.663	1.00	20.00	6
	ATOM	2100	CD1	LEU	B	336	87.486	23.177	13.787	1.00	20.00	6
	ATOM	2101	CD2	LEU	B	336	87.239	25.399	12.653	1.00	20.00	6
10	ATOM	2102	C	LEU	B	336	90.060	24.068	15.839	1.00	20.00	6
	ATOM	2103	O	LEU	B	336	90.274	22.870	15.665	1.00	20.00	8
	ATOM	2104	N	LYS	B	337	91.011	24.986	15.717	1.00	20.00	7
	ATOM	2105	CA	LYS	B	337	92.370	24.597	15.360	1.00	20.00	6
	ATOM	2106	CB	LYS	B	337	93.198	25.848	15.046	1.00	20.00	6
15	ATOM	2107	CG	LYS	B	337	92.678	26.560	13.801	1.00	20.00	6
	ATOM	2108	CD	LYS	B	337	93.111	28.014	13.717	1.00	20.00	6
	ATOM	2109	CE	LYS	B	337	94.561	28.167	13.314	1.00	20.00	6
	ATOM	2110	NZ	LYS	B	337	94.882	29.611	13.122	1.00	20.00	7
	ATOM	2111	C	LYS	B	337	93.020	23.764	16.467	1.00	20.00	6
20	ATOM	2112	O	LYS	B	337	93.965	23.015	16.215	1.00	20.00	8
	ATOM	2113	N	ALA	B	338	92.495	23.866	17.684	1.00	20.00	7
	ATOM	2114	CA	ALA	B	338	93.056	23.105	18.799	1.00	20.00	6
	ATOM	2115	CB	ALA	B	338	92.873	23.877	20.105	1.00	20.00	6
	ATOM	2116	C	ALA	B	338	92.441	21.718	18.929	1.00	20.00	6
25	ATOM	2117	O	ALA	B	338	92.805	20.955	19.820	1.00	20.00	8
	ATOM	2118	N	HIS	B	339	91.513	21.375	18.043	1.00	20.00	7
	ATOM	2119	CA	HIS	B	339	90.886	20.061	18.129	1.00	20.00	6
	ATOM	2120	CB	HIS	B	339	89.786	19.919	17.074	1.00	20.00	6
	ATOM	2121	CG	HIS	B	339	88.999	18.654	17.199	1.00	20.00	6
30	ATOM	2122	CD2	HIS	B	339	87.797	18.406	17.774	1.00	20.00	6
	ATOM	2123	ND1	HIS	B	339	89.462	17.440	16.737	1.00	20.00	7
	ATOM	2124	CE1	HIS	B	339	88.578	16.498	17.021	1.00	20.00	6
	ATOM	2125	NE2	HIS	B	339	87.559	17.057	17.650	1.00	20.00	7
	ATOM	2126	C	HIS	B	339	91.928	18.952	17.970	1.00	20.00	6
35	ATOM	2127	O	HIS	B	339	92.863	19.077	17.186	1.00	20.00	8
	ATOM	2128	N	PRO	B	340	91.780	17.854	18.731	1.00	20.00	7
	ATOM	2129	CD	PRO	B	340	90.747	17.655	19.765	1.00	20.00	6
	ATOM	2130	CA	PRO	B	340	92.700	16.711	18.694	1.00	20.00	6
	ATOM	2131	CB	PRO	B	340	91.966	15.665	19.521	1.00	20.00	6
40	ATOM	2132	CG	PRO	B	340	91.310	16.505	20.579	1.00	20.00	6
	ATOM	2133	C	PRO	B	340	93.072	16.198	17.301	1.00	20.00	6
	ATOM	2134	O	PRO	B	340	94.193	15.748	17.080	1.00	20.00	8
	ATOM	2135	N	PHE	B	341	92.139	16.270	16.362	1.00	20.00	7
	ATOM	2136	CA	PHE	B	341	92.407	15.797	15.011	1.00	20.00	6
45	ATOM	2137	CB	PHE	B	341	91.152	15.943	14.142	1.00	20.00	6
	ATOM	2138	CG	PHE	B	341	91.317	15.424	12.738	1.00	20.00	6
	ATOM	2139	CD1	PHE	B	341	91.596	14.080	12.507	1.00	20.00	6
	ATOM	2140	CD2	PHE	B	341	91.182	16.277	11.647	1.00	20.00	6
	ATOM	2141	CE1	PHE	B	341	91.738	13.592	11.207	1.00	20.00	6
50	ATOM	2142	CE2	PHE	B	341	91.320	15.803	10.345	1.00	20.00	6
	ATOM	2143	CZ	PHE	B	341	91.599	14.457	10.123	1.00	20.00	6
	ATOM	2144	C	PHE	B	341	93.571	16.550	14.362	1.00	20.00	6
	ATOM	2145	O	PHE	B	341	94.268	16.002	13.514	1.00	20.00	8
	ATOM	2146	N	PHE	B	342	93.777	17.800	14.765	1.00	20.00	7
55	ATOM	2147	CA	PHE	B	342	94.842	18.630	14.202	1.00	20.00	6
	ATOM	2148	CB	PHE	B	342	94.336	20.058	13.975	1.00	20.00	6
	ATOM	2149	CG	PHE	B	342	93.124	20.152	13.096	1.00	20.00	6
	ATOM	2150	CD1	PHE	B	342	93.166	19.729	11.777	1.00	20.00	6
	ATOM	2151	CD2	PHE	B	342	91.954	20.734	13.575	1.00	20.00	6

	ATOM	2152	CE1	PHE	B	342	92.058	19.888	10.936	1.00	20.00	6
	ATOM	2153	CE2	PHE	B	342	90.843	20.898	12.742	1.00	20.00	6
	ATOM	2154	CZ	PHE	B	342	90.898	20.475	11.423	1.00	20.00	6
	ATOM	2155	C	PHE	B	342	96.077	18.718	15.101	1.00	20.00	6
5	ATOM	2156	O	PHE	B	342	96.932	19.584	14.902	1.00	20.00	8
	ATOM	2157	N	GLU	B	343	96.173	17.829	16.083	1.00	20.00	7
	ATOM	2158	CA	GLU	B	343	97.293	17.857	17.022	1.00	20.00	6
	ATOM	2159	CB	GLU	B	343	97.330	16.564	17.841	1.00	20.00	6
	ATOM	2160	CG	GLU	B	343	98.475	16.525	18.839	1.00	20.00	6
10	ATOM	2161	CD	GLU	B	343	98.372	15.365	19.813	1.00	20.00	6
	ATOM	2162	OE1	GLU	B	343	98.290	14.201	19.359	1.00	20.00	8
	ATOM	2163	OE2	GLU	B	343	98.379	15.622	21.036	1.00	20.00	8
	ATOM	2164	C	GLU	B	343	98.683	18.113	16.430	1.00	20.00	6
	ATOM	2165	O	GLU	B	343	99.419	18.969	16.925	1.00	20.00	8
15	ATOM	2166	N	SER	B	344	99.047	17.382	15.383	1.00	20.00	7
	ATOM	2167	CA	SER	B	344	100.370	17.549	14.781	1.00	20.00	6
	ATOM	2168	CB	SER	B	344	100.848	16.219	14.192	1.00	20.00	6
	ATOM	2169	OG	SER	B	344	100.072	15.856	13.065	1.00	20.00	8
	ATOM	2170	C	SER	B	344	100.467	18.629	13.702	1.00	20.00	6
20	ATOM	2171	O	SER	B	344	101.485	18.732	13.025	1.00	20.00	8
	ATOM	2172	N	VAL	B	345	99.423	19.435	13.544	1.00	20.00	7
	ATOM	2173	CA	VAL	B	345	99.430	20.486	12.527	1.00	20.00	6
	ATOM	2174	CB	VAL	B	345	97.985	20.843	12.075	1.00	20.00	6
	ATOM	2175	CG1	VAL	B	345	98.015	22.042	11.120	1.00	20.00	6
25	ATOM	2176	CG2	VAL	B	345	97.335	19.646	11.400	1.00	20.00	6
	ATOM	2177	C	VAL	B	345	100.096	21.785	12.980	1.00	20.00	6
	ATOM	2178	O	VAL	B	345	99.844	22.275	14.085	1.00	20.00	8
	ATOM	2179	N	THR	B	346	100.951	22.335	12.122	1.00	20.00	7
	ATOM	2180	CA	THR	B	346	101.602	23.610	12.397	1.00	20.00	6
30	ATOM	2181	CB	THR	B	346	103.096	23.593	11.982	1.00	20.00	6
	ATOM	2182	OG1	THR	B	346	103.816	22.688	12.831	1.00	20.00	8
	ATOM	2183	CG2	THR	B	346	103.707	24.983	12.115	1.00	20.00	6
	ATOM	2184	C	THR	B	346	100.810	24.573	11.510	1.00	20.00	6
	ATOM	2185	O	THR	B	346	100.950	24.565	10.285	1.00	20.00	8
35	ATOM	2186	N	TRP	B	347	99.966	25.385	12.138	1.00	20.00	7
	ATOM	2187	CA	TRP	B	347	99.089	26.306	11.425	1.00	20.00	6
	ATOM	2188	CB	TRP	B	347	97.941	26.727	12.344	1.00	20.00	6
	ATOM	2189	CG	TRP	B	347	97.088	25.594	12.818	1.00	20.00	6
	ATOM	2190	CD2	TRP	B	347	95.924	25.071	12.165	1.00	20.00	6
40	ATOM	2191	CE2	TRP	B	347	95.436	24.008	12.963	1.00	20.00	6
	ATOM	2192	CE3	TRP	B	347	95.247	25.397	10.983	1.00	20.00	6
	ATOM	2193	CD1	TRP	B	347	97.259	24.848	13.953	1.00	20.00	6
	ATOM	2194	NE1	TRP	B	347	96.269	23.893	14.048	1.00	20.00	7
	ATOM	2195	CZ2	TRP	B	347	94.300	23.270	12.616	1.00	20.00	6
45	ATOM	2196	CZ3	TRP	B	347	94.113	24.661	10.636	1.00	20.00	6
	ATOM	2197	CH2	TRP	B	347	93.654	23.610	11.452	1.00	20.00	6
	ATOM	2198	C	TRP	B	347	99.679	27.563	10.800	1.00	20.00	6
	ATOM	2199	O	TRP	B	347	99.101	28.114	9.867	1.00	20.00	8
	ATOM	2200	N	ALA	B	348	100.820	28.016	11.308	1.00	20.00	7
50	ATOM	2201	CA	ALA	B	348	101.439	29.247	10.822	1.00	20.00	6
	ATOM	2202	CB	ALA	B	348	102.582	29.656	11.761	1.00	20.00	6
	ATOM	2203	C	ALA	B	348	101.933	29.277	9.381	1.00	20.00	6
	ATOM	2204	O	ALA	B	348	101.874	30.323	8.738	1.00	20.00	8
	ATOM	2205	N	ASN	B	349	102.411	28.152	8.860	1.00	20.00	7
55	ATOM	2206	CA	ASN	B	349	102.940	28.153	7.500	1.00	20.00	6
	ATOM	2207	CB	ASN	B	349	104.466	28.205	7.569	1.00	20.00	6
	ATOM	2208	CG	ASN	B	349	105.058	26.929	8.138	1.00	20.00	6
	ATOM	2209	OD1	ASN	B	349	104.445	26.282	8.984	1.00	20.00	8
	ATOM	2210	ND2	ASN	B	349	106.251	26.563	7.678	1.00	20.00	7

	ATOM	2211	C	ASN	B	349	102.522	26.966	6.634	1.00	20.00	6
	ATOM	2212	O	ASN	B	349	103.353	26.371	5.944	1.00	20.00	8
	ATOM	2213	N	LEU	B	350	101.242	26.628	6.643	1.00	20.00	7
	ATOM	2214	CA	LEU	B	350	100.776	25.500	5.846	1.00	20.00	6
5	ATOM	2215	CB	LEU	B	350	99.257	25.355	5.973	1.00	20.00	6
	ATOM	2216	CG	LEU	B	350	98.734	24.848	7.316	1.00	20.00	6
	ATOM	2217	CD1	LEU	B	350	97.244	25.127	7.418	1.00	20.00	6
	ATOM	2218	CD2	LEU	B	350	99.030	23.357	7.444	1.00	20.00	6
	ATOM	2219	C	LEU	B	350	101.147	25.574	4.365	1.00	20.00	6
10	ATOM	2220	O	LEU	B	350	101.557	24.575	3.775	1.00	20.00	8
	ATOM	2221	N	HIS	B	351	101.006	26.744	3.752	1.00	20.00	7
	ATOM	2222	CA	HIS	B	351	101.305	26.829	2.329	1.00	20.00	6
	ATOM	2223	CB	HIS	B	351	100.651	28.087	1.721	1.00	20.00	6
	ATOM	2224	CG	HIS	B	351	101.553	29.274	1.618	1.00	20.00	6
15	ATOM	2225	CD2	HIS	B	351	102.001	30.143	2.556	1.00	20.00	6
	ATOM	2226	ND1	HIS	B	351	102.072	29.706	0.416	1.00	20.00	7
	ATOM	2227	CE1	HIS	B	351	102.798	30.792	0.618	1.00	20.00	6
	ATOM	2228	NE2	HIS	B	351	102.772	31.079	1.907	1.00	20.00	7
	ATOM	2229	C	HIS	B	351	102.797	26.731	1.999	1.00	20.00	6
20	ATOM	2230	O	HIS	B	351	103.176	26.669	0.832	1.00	20.00	8
	ATOM	2231	N	GLN	B	352	103.634	26.685	3.033	1.00	20.00	7
	ATOM	2232	CA	GLN	B	352	105.081	26.554	2.851	1.00	20.00	6
	ATOM	2233	CB	GLN	B	352	105.841	27.458	3.819	1.00	20.00	6
	ATOM	2234	CG	GLN	B	352	106.395	28.705	3.166	1.00	20.00	6
25	ATOM	2235	CD	GLN	B	352	105.930	29.966	3.854	1.00	20.00	6
	ATOM	2236	OE1	GLN	B	352	106.134	30.139	5.053	1.00	20.00	8
	ATOM	2237	NE2	GLN	B	352	105.299	30.854	3.096	1.00	20.00	7
	ATOM	2238	C	GLN	B	352	105.478	25.099	3.088	1.00	20.00	6
	ATOM	2239	O	GLN	B	352	106.632	24.715	2.895	1.00	20.00	8
30	ATOM	2240	N	GLN	B	353	104.514	24.295	3.522	1.00	20.00	7
	ATOM	2241	CA	GLN	B	353	104.761	22.888	3.777	1.00	20.00	6
	ATOM	2242	CB	GLN	B	353	103.849	22.395	4.900	1.00	20.00	6
	ATOM	2243	CG	GLN	B	353	104.122	23.050	6.240	1.00	20.00	6
	ATOM	2244	CD	GLN	B	353	103.075	22.711	7.281	1.00	20.00	6
35	ATOM	2245	OE1	GLN	B	353	102.627	21.571	7.377	1.00	20.00	8
	ATOM	2246	NE2	GLN	B	353	102.690	23.700	8.076	1.00	20.00	7
	ATOM	2247	C	GLN	B	353	104.507	22.079	2.510	1.00	20.00	6
	ATOM	2248	O	GLN	B	353	103.732	22.490	1.641	1.00	20.00	8
	ATOM	2249	N	THR	B	354	105.172	20.937	2.401	1.00	20.00	7
40	ATOM	2250	CA	THR	B	354	104.998	20.071	1.244	1.00	20.00	6
	ATOM	2251	CB	THR	B	354	106.240	19.173	1.029	1.00	20.00	6
	ATOM	2252	OG1	THR	B	354	107.390	19.999	0.790	1.00	20.00	8
	ATOM	2253	CG2	THR	B	354	106.033	18.243	-0.166	1.00	20.00	6
	ATOM	2254	C	THR	B	354	103.777	19.197	1.501	1.00	20.00	6
45	ATOM	2255	O	THR	B	354	103.745	18.426	2.454	1.00	20.00	8
	ATOM	2256	N	PRO	B	355	102.741	19.319	0.658	1.00	20.00	7
	ATOM	2257	CD	PRO	B	355	102.547	20.275	-0.444	1.00	20.00	6
	ATOM	2258	CA	PRO	B	355	101.540	18.505	0.859	1.00	20.00	6
	ATOM	2259	CB	PRO	B	355	100.616	18.967	-0.266	1.00	20.00	6
50	ATOM	2260	CG	PRO	B	355	101.039	20.387	-0.490	1.00	20.00	6
	ATOM	2261	C	PRO	B	355	101.835	17.011	0.766	1.00	20.00	6
	ATOM	2262	O	PRO	B	355	102.631	16.577	-0.065	1.00	20.00	8
	ATOM	2263	N	PRO	B	356	101.198	16.204	1.625	1.00	20.00	7
	ATOM	2264	CD	PRO	B	356	100.128	16.522	2.587	1.00	20.00	6
55	ATOM	2265	CA	PRO	B	356	101.438	14.761	1.573	1.00	20.00	6
	ATOM	2266	CB	PRO	B	356	100.593	14.235	2.729	1.00	20.00	6
	ATOM	2267	CG	PRO	B	356	99.429	15.188	2.737	1.00	20.00	6
	ATOM	2268	C	PRO	B	356	100.960	14.244	0.222	1.00	20.00	6
	ATOM	2269	O	PRO	B	356	100.005	14.779	-0.346	1.00	20.00	8

	ATOM	2270	N	ALA	B	357	101.629	13.221	-0.300	1.00	20.00	7	
	ATOM	2271	CA	ALA	B	357	101.247	12.660	-1.588	1.00	20.00	6	
	ATOM	2272	CB	ALA	B	357	102.352	11.750	-2.118	1.00	20.00	6	
	ATOM	2273	C	ALA	B	357	99.948	11.883	-1.427	1.00	20.00	6	
5	ATOM	2274	O	ALA	B	357	99.808	11.074	-0.506	1.00	20.00	8	
	ATOM	2275	N	LEU	B	358	99.000	12.134	-2.323	1.00	20.00	7	
	ATOM	2276	CA	LEU	B	358	97.709	11.460	-2.278	1.00	20.00	6	
	ATOM	2277	CB	LEU	B	358	96.729	12.166	-3.217	1.00	20.00	6	
	ATOM	2278	CG	LEU	B	358	96.368	13.582	-2.766	1.00	20.00	6	
10	ATOM	2279	CD1	LEU	B	358	95.513	14.262	-3.813	1.00	20.00	6	
	ATOM	2280	CD2	LEU	B	358	95.636	13.516	-1.430	1.00	20.00	6	
	ATOM	2281	C	LEU	B	358	97.813	9.976	-2.633	1.00	20.00	6	
	ATOM	2282	O	LEU	B	358	97.918	9.614	-3.806	1.00	20.00	8	
	ATOM	2283	N	THR	B	359	97.776	9.134	-1.600	1.00	20.00	7	
15	ATOM	2284	CA	THR	B	359	97.867	7.678	-1.735	1.00	20.00	6	
	ATOM	2285	CB	THR	B	359	96.513	7.046	-2.149	1.00	20.00	6	
	ATOM	2286	OG1	THR	B	359	96.111	7.555	-3.427	1.00	20.00	8	
	ATOM	2287	CG2	THR	B	359	95.439	7.355	-1.112	1.00	20.00	6	
	ATOM	2288	C	THR	B	359	98.933	7.238	-2.736	1.00	20.00	6	
20	ATOM	2289	O	THR	B	359	99.903	7.998	-2.945	1.00	20.00	8	
	ATOM	2290	OXT	THR	B	359	98.802	6.121	-3.280	1.00	20.00	8	
	TER												
	ATOM	2291	OH2	TIP	S	1	42.566	19.118	34.302	1.00	15.09		S
	ATOM	2292	OH2	TIP	S	2	41.052	32.378	19.857	1.00	15.82		S
25	ATOM	2293	OH2	TIP	S	3	37.014	33.030	17.747	1.00	16.95		S
	ATOM	2294	OH2	TIP	S	5	45.353	24.370	18.152	1.00	16.85		S
	ATOM	2295	OH2	TIP	S	6	31.896	13.930	33.235	1.00	20.42		S
	ATOM	2296	OH2	TIP	S	7	50.351	22.781	28.249	1.00	21.14		S
	ATOM	2297	OH2	TIP	S	8	45.246	-0.589	-0.734	1.00	17.74		S
30	ATOM	2298	OH2	TIP	S	11	46.249	-0.348	-8.523	1.00	21.32		S
	ATOM	2299	OH2	TIP	S	14	45.756	11.148	29.680	1.00	21.94		S
	ATOM	2300	OH2	TIP	S	15	44.273	13.157	34.592	1.00	15.61		S
	ATOM	2301	OH2	TIP	S	17	53.598	3.722	-1.720	1.00	21.45		S
	ATOM	2302	OH2	TIP	S	18	46.049	13.087	31.565	1.00	20.35		S
35	ATOM	2303	OH2	TIP	S	19	53.422	22.401	-3.280	1.00	23.26		S
	ATOM	2304	OH2	TIP	S	20	34.587	7.922	5.383	1.00	22.58		S
	ATOM	2305	OH2	TIP	S	21	45.053	27.379	19.376	1.00	29.60		S
	ATOM	2306	OH2	TIP	S	23	28.899	36.416	28.633	1.00	31.68		S
	ATOM	2307	OH2	TIP	S	24	35.531	11.645	-8.219	1.00	23.45		S
40	ATOM	2308	OH2	TIP	S	25	47.364	28.787	19.612	1.00	23.03		S
	ATOM	2309	OH2	TIP	S	27	48.859	21.588	12.634	1.00	23.76		S
	ATOM	2310	OH2	TIP	S	29	48.805	8.920	23.626	1.00	22.23		S
	ATOM	2311	OH2	TIP	S	31	48.619	7.247	10.112	1.00	21.32		S
	ATOM	2312	OH2	TIP	S	34	44.824	28.720	15.621	1.00	25.27		S
45	ATOM	2313	OH2	TIP	S	35	26.030	12.634	13.407	1.00	21.61		S
	ATOM	2314	OH2	TIP	S	36	50.462	19.810	40.066	1.00	25.45		S
	ATOM	2315	OH2	TIP	S	37	39.631	23.510	-0.239	1.00	30.88		S
	ATOM	2316	OH2	TIP	S	40	44.734	42.655	10.346	1.00	30.84		S
	ATOM	2317	OH2	TIP	S	41	54.653	3.902	1.503	1.00	27.14		S
50	ATOM	2318	OH2	TIP	S	45	45.693	21.923	39.754	1.00	28.30		S
	ATOM	2319	OH2	TIP	S	47	47.820	16.413	7.805	1.00	25.73		S
	ATOM	2320	OH2	TIP	S	48	50.292	31.412	29.642	1.00	32.79		S
	ATOM	2321	OH2	TIP	S	49	26.056	16.646	34.827	1.00	29.80		S
	ATOM	2322	OH2	TIP	S	52	31.714	10.996	31.855	1.00	29.15		S
55	ATOM	2323	OH2	TIP	S	53	46.108	23.843	-4.299	1.00	24.21		S
	ATOM	2324	OH2	TIP	S	54	37.645	11.206	34.448	1.00	28.56		S
	ATOM	2325	OH2	TIP	S	55	26.371	28.513	12.142	1.00	32.08		S
	ATOM	2326	OH2	TIP	S	58	33.564	19.700	3.483	1.00	28.28		S
	ATOM	2327	OH2	TIP	S	64	48.295	-0.632	14.280	1.00	32.13		S

	ATOM	2328	OH2 TIP S	65	40.064	26.036	34.324	1.00 24.17	S
	ATOM	2329	OH2 TIP S	66	29.570	3.958	14.729	1.00 28.94	S
	ATOM	2330	OH2 TIP S	72	60.085	11.604	6.814	1.00 38.35	S
	ATOM	2331	OH2 TIP S	73	39.203	44.403	18.686	1.00 26.61	S
5	ATOM	2332	OH2 TIP S	76	47.312	12.366	27.366	1.00 28.51	S
	ATOM	2333	OH2 TIP S	80	43.862	33.771	33.329	1.00 28.82	S
	ATOM	2334	OH2 TIP S	81	57.890	13.106	2.128	1.00 40.62	S
	ATOM	2335	OH2 TIP S	82	41.663	34.381	32.043	1.00 19.35	S
	ATOM	2336	OH2 TIP S	85	50.974	40.331	19.200	1.00 21.14	S
10	ATOM	2337	OH2 TIP S	88	47.925	-0.832	-6.556	1.00 24.11	S
	ATOM	2338	OH2 TIP S	90	27.231	28.336	33.481	1.00 27.64	S
	ATOM	2339	OH2 TIP S	91	43.651	-7.101	-7.995	1.00 24.33	S
	ATOM	2340	OH2 TIP S	92	49.325	4.387	19.370	1.00 28.02	S
	ATOM	2341	OH2 TIP S	93	46.231	11.549	33.898	1.00 29.40	S
15	ATOM	2342	OH2 TIP S	94	63.889	24.831	1.168	1.00 26.53	S
	ATOM	2343	OH2 TIP S	96	56.396	4.952	-6.749	1.00 28.00	S
	ATOM	2344	OH2 TIP S	98	35.510	27.986	11.558	1.00 29.24	S
	ATOM	2345	OH2 TIP S	100	49.942	24.366	30.265	1.00 31.61	S
	ATOM	2346	OH2 TIP S	101	56.121	7.113	-8.298	1.00 31.57	S
20	ATOM	2347	OH2 TIP S	102	58.318	19.957	-8.378	1.00 26.95	S
	ATOM	2348	OH2 TIP S	103	49.647	22.446	39.624	1.00 40.57	S
	ATOM	2349	OH2 TIP S	104	45.359	7.052	13.052	1.00 26.27	S
	ATOM	2350	OH2 TIP S	105	37.150	32.340	32.346	1.00 34.45	S
	ATOM	2351	OH2 TIP S	107	43.465	40.457	8.240	1.00 40.48	S
25	ATOM	2352	OH2 TIP S	119	36.644	8.257	13.418	1.00 30.70	S
	ATOM	2353	OH2 TIP S	123	41.912	-8.974	-8.264	1.00 26.08	S
	ATOM	2354	OH2 TIP S	124	62.424	15.800	-7.411	1.00 24.08	S
	ATOM	2355	OH2 TIP S	126	37.266	18.656	-9.097	1.00 28.99	S
	ATOM	2356	OH2 TIP S	127	43.129	26.845	14.606	1.00 25.19	S
30	ATOM	2357	OH2 TIP S	128	36.339	32.639	29.802	1.00 29.25	S
	ATOM	2358	OH2 TIP S	130	54.051	14.561	26.498	1.00 33.93	S
	ATOM	2359	OH2 TIP S	131	41.805	-4.242	5.492	1.00 33.72	S
	ATOM	2360	OH2 TIP S	133	38.873	25.163	36.697	1.00 30.69	S
	ATOM	2361	OH2 TIP S	134	28.777	8.553	25.307	1.00 31.43	S
35	ATOM	2362	OH2 TIP S	135	53.672	10.546	-12.803	1.00 33.45	S
	ATOM	2363	OH2 TIP S	136	59.892	15.434	11.467	1.00 31.39	S
	ATOM	2364	OH2 TIP S	137	31.040	12.361	35.470	1.00 34.07	S
	ATOM	2365	OH2 TIP S	139	33.489	14.292	-0.598	1.00 40.68	S
	ATOM	2366	OH2 TIP S	140	46.918	8.748	11.662	1.00 29.23	S
40	ATOM	2367	OH2 TIP S	141	46.297	-7.287	-9.196	1.00 42.20	S
	ATOM	2368	OH2 TIP S	142	58.193	6.715	-4.685	1.00 35.48	S
	ATOM	2369	OH2 TIP S	143	44.598	4.435	12.503	1.00 27.68	S
	ATOM	2370	OH2 TIP S	144	27.003	5.999	12.450	1.00 36.30	S
	ATOM	2371	OH2 TIP S	145	43.676	32.852	35.735	1.00 35.70	S
45	ATOM	2372	OH2 TIP S	146	35.783	18.628	36.452	1.00 34.62	S
	ATOM	2373	OH2 TIP S	147	25.402	4.058	20.638	1.00 45.03	S
	ATOM	2374	OH2 TIP S	148	45.839	35.853	33.724	1.00 35.47	S
	ATOM	2375	OH2 TIP S	149	22.176	18.976	16.752	1.00 31.87	S
	ATOM	2376	OH2 TIP S	150	43.986	33.179	10.162	1.00 37.70	S
50	ATOM	2377	OH2 TIP S	151	50.653	20.347	42.428	1.00 35.80	S
	ATOM	2378	OH2 TIP S	152	47.843	24.314	9.506	1.00 31.05	S
	ATOM	2379	OH2 TIP S	153	44.693	5.273	-14.175	1.00 29.90	S
	ATOM	2380	OH2 TIP S	155	26.560	36.851	31.684	1.00 49.29	S
	ATOM	2381	OH2 TIP S	156	46.867	8.019	-12.951	1.00 29.21	S
55	ATOM	2382	OH2 TIP S	157	30.432	28.741	12.438	1.00 37.76	S
	ATOM	2383	OH2 TIP S	158	41.004	20.553	6.423	1.00 39.53	S
	ATOM	2384	OH2 TIP S	159	49.258	20.069	29.294	1.00 33.97	S
	ATOM	2385	OH2 TIP S	160	48.082	28.459	16.489	1.00 33.10	S
	ATOM	2386	OH2 TIP S	161	47.448	18.625	27.683	1.00 34.87	S

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      ATOM  2387 OH2 TIP S 162    19.687  20.632  23.411  1.00 35.01      S
      ATOM  2388 OH2 TIP S 163    32.402  -1.266  22.443  1.00 37.26      S
      ATOM  2389 OH2 TIP S 164    39.475  33.468  33.237  1.00 35.34      S
      ATOM  2390 OH2 TIP S 165    44.277  18.950   5.162  1.00 45.14      S
 5    ATOM  2391 OH2 TIP S 166    34.797  30.523  10.736  1.00 47.55      S
      ATOM  2392 OH2 TIP S 167    46.541   3.526 -14.949  1.00 26.54      S
      ATOM  2393 OH2 TIP S 168    36.333  16.371   1.539  1.00 38.68      S
      ATOM  2394 OH2 TIP S 169    46.761  38.936  27.403  1.00 34.66      S
      ATOM  2395 OH2 TIP S 170    24.163  13.264  11.375  1.00 41.23      S
 10   ATOM  2396 OH2 TIP S 171    48.459  15.018  31.951  1.00 38.11      S
      ATOM  2397 OH2 TIP S 172    34.261  23.193  40.004  1.00 48.96      S
      ATOM  2398 OH2 TIP S 173    45.924  -0.026  13.224  1.00 39.55      S
      ATOM  2399 OH2 TIP S 175    41.384  37.389  32.543  1.00 40.74      S
      ATOM  2400 OH2 TIP S 177    49.394  35.312  27.150  1.00 44.33      S
 15   ATOM  2401 OH2 TIP S 178    29.066  29.942  34.359  1.00 41.46      S
      ATOM  2402 OH2 TIP S 180    49.354  19.467   7.273  1.00 34.56      S
      ATOM  2403 OH2 TIP S 181    25.298  17.029  31.863  1.00 47.74      S
      ATOM  2404 OH2 TIP S 182    37.071  25.027   4.669  1.00 43.87      S
      ATOM  2405 OH2 TIP S 183    22.581   7.487  18.691  1.00 41.75      S
 20   ATOM  2406 OH2 TIP S 184    32.269   7.011  -1.891  1.00 48.84      S
      ATOM  2407 OH2 TIP S 185    48.234   0.494   6.833  1.00 48.16      S
      ATOM  2408 OH2 TIP S 187    20.008  14.658  19.211  1.00 45.27      S
      ATOM  2409 OH2 TIP S 188    49.341  22.698  42.272  1.00 42.20      S
      ATOM  2410 OH2 TIP S 190    61.292  18.260  -8.097  1.00 45.21      S
 25   ATOM  2411 OH2 TIP S 191    28.152  10.606   2.819  1.00 40.38      S
      ATOM  2412 OH2 TIP S 192    25.626  12.619  23.191  1.00 34.27      S
      ATOM  2413 OH2 TIP S 193    59.876  11.603   1.216  1.00 46.54      S
      ATOM  2414 OH2 TIP S 194    57.592  21.183 -10.646  1.00 45.82      S
      ATOM  2415 OH2 TIP S 195    31.509  36.649  21.499  1.00 38.73      S
 30   ATOM  2416 OH2 TIP S 197    50.270  -1.543  -6.136  1.00 42.66      S
      ATOM  2417 OH2 TIP S 198    24.467   8.729  13.088  1.00 42.78      S
      ATOM  2418 OH2 TIP S 199    38.098   8.699  25.759  1.00 32.80      S
      ATOM  2419 OH2 TIP S 200    57.831  11.358 -13.255  1.00 45.31      S
      ATOM  2420 OH2 TIP S 201    23.888  22.328  30.524  1.00 37.12      S
 35   ATOM  2421 OH2 TIP S 202    47.691  26.068  37.666  1.00 37.92      S
      ATOM  2422 OH2 TIP S 203    38.653   7.070  29.307  1.00 50.54      S
      ATOM  2423 OH2 TIP S 206    44.424  27.583   2.092  1.00 53.50      S
      ATOM  2424 OH2 TIP S 212    22.258   2.296  17.948  1.00 47.38      S
      ATOM  2425 OH2 TIP S 214    19.843  17.943  23.303  1.00 30.36      S
 40   ATOM  2426 OH2 TIP S 216    27.647  11.344  24.681  1.00 31.32      S
      ATOM  2427 OH2 TIP S 217    37.953   7.817  -9.284  1.00 45.97      S
      ATOM  2428 OH2 TIP S 218    33.845  34.040  12.124  1.00 38.11      S
      ATOM  2429 OH2 TIP S 219    58.484  15.269  13.717  1.00 38.26      S
      ATOM  2430 OH2 TIP S 220    48.526  40.920  26.583  1.00 35.23      S
 45   ATOM  2431 OH2 TIP S 222    52.094  21.184  38.122  1.00 29.86      S
      ATOM  2432 OH2 TIP S 223    36.889   5.881   3.281  1.00 37.63      S
      ATOM  2433 OH2 TIP S 224    47.642  -1.401 -10.684  1.00 34.89      S
      ATOM  2434 OH2 TIP S 226    47.284   2.916  19.133  1.00 34.10      S
      ATOM  2435 OH2 TIP S 227    42.468   4.463 -15.039  1.00 37.98      S
 50   ATOM  2436 OH2 TIP S 228    19.169  22.832  21.831  1.00 41.57      S
      ATOM  2437 OH2 TIP S 231    57.592  12.689  14.880  1.00 50.22      S
      ATOM  2438 OH2 TIP S 232    27.102   9.176   5.655  1.00 40.57      S
      ATOM  2439 OH2 TIP S 233    58.618   9.072 -11.925  1.00 50.71      S
      ATOM  2440 OH2 TIP S 234    22.822  25.342  19.945  1.00 34.93      S
 55   ATOM  2441 OH2 TIP S 236    24.831  32.218  28.901  1.00 37.69      S
      ATOM  2442 OH2 TIP S 237    20.045  10.774  16.992  1.00 39.57      S
      ATOM  2443 OH2 TIP S 238    58.019  19.850  15.679  1.00 41.42      S
      ATOM  2444 OH2 TIP S 239    19.490  20.949  26.114  1.00 34.55      S
      ATOM  2445 OH2 TIP S 240    61.187  26.377   7.346  1.00 39.68      S
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	ATOM	2446	OH2	TIP	S	241	33.680	38.342	19.389	1.00 48.93	S
	ATOM	2447	OH2	TIP	S	242	51.539	31.612	10.881	1.00 55.65	S
	ATOM	2448	OH2	TIP	S	244	25.872	14.431	30.404	1.00 46.69	S
	ATOM	2449	OH2	TIP	S	248	37.332	5.849	9.544	1.00 43.81	S
5	ATOM	2450	OH2	TIP	S	250	39.087	-1.293	-9.655	1.00 42.96	S
	ATOM	2451	OH2	TIP	S	258	23.938	30.000	30.010	1.00 38.89	S
	ATOM	2452	OH2	TIP	S	259	24.949	29.749	32.578	1.00 40.17	S
	ATOM	2453	OH2	TIP	S	260	32.111	17.986	1.918	1.00 48.36	S
	ATOM	2454	OH2	TIP	S	266	21.404	12.876	25.603	1.00 57.17	S
10	ATOM	2455	OH2	TIP	S	269	35.425	36.767	12.550	1.00 30.70	S
	ATOM	2456	OH2	TIP	S	270	52.438	25.529	30.131	1.00 44.85	S
	ATOM	2457	OH2	TIP	S	271	53.299	20.156	36.003	1.00 37.15	S
	ATOM	2458	OH2	TIP	S	272	50.914	6.919	23.723	1.00 43.29	S
	ATOM	2459	OH2	TIP	S	274	31.578	30.795	11.014	1.00 50.15	S
15	ATOM	2460	OH2	TIP	S	275	26.341	7.243	22.447	1.00 39.40	S
	ATOM	2461	OH2	TIP	S	276	60.392	18.195	10.235	1.00 37.91	S
	ATOM	2462	OH2	TIP	S	277	47.355	-9.081	-10.821	1.00 48.18	S
	ATOM	2463	OH2	TIP	S	279	41.304	6.175	-16.647	1.00 38.12	S
	ATOM	2464	OH2	TIP	S	282	33.299	21.620	37.881	1.00 46.29	S
20	ATOM	2465	OH2	TIP	S	283	56.469	26.112	-8.575	1.00 43.71	S
	ATOM	2466	OH2	TIP	S	287	48.382	26.573	7.246	1.00 41.43	S
	ATOM	2467	OH2	TIP	S	288	56.240	7.245	-11.331	1.00 41.79	S
	ATOM	2468	OH2	TIP	S	290	49.060	14.978	28.166	1.00 37.03	S
	ATOM	2469	OH2	TIP	S	291	37.095	44.270	26.442	1.00 45.08	S
25	ATOM	2470	OH2	TIP	S	292	47.814	-0.384	-13.299	1.00 48.60	S
	ATOM	2471	OH2	TIP	S	297	58.081	2.784	-7.841	1.00 41.89	S
	ATOM	2472	OH2	TIP	S	298	36.447	45.321	18.644	1.00 54.91	S
	ATOM	2473	OH2	TIP	S	299	49.029	23.328	1.767	1.00 30.55	S
	ATOM	2474	OH2	TIP	S	301	24.375	13.771	8.634	1.00 48.47	S
30	ATOM	2475	OH2	TIP	S	303	47.904	36.798	28.653	1.00 35.76	S
	ATOM	2476	OH2	TIP	S	305	51.156	40.821	27.172	1.00 43.59	S
	ATOM	2477	OH2	TIP	S	306	32.943	28.917	35.227	1.00 42.60	S
	ATOM	2478	OH2	TIP	S	307	58.462	28.373	6.251	1.00 46.15	S
	ATOM	2479	OH2	TIP	S	308	41.964	30.940	36.712	1.00 48.26	S
35	ATOM	2480	OH2	TIP	S	313	51.176	-1.922	-3.336	1.00 50.61	S
	ATOM	2481	OH2	TIP	S1001		21.319	36.868	23.805	1.00 36.97	S
	ATOM	2482	OH2	TIP	S1002		48.880	32.620	27.617	1.00 44.40	S
	ATOM	2483	OH2	TIP	S1003		61.880	19.473	11.767	1.00 45.49	S
	ATOM	2484	OH2	TIP	S1004		52.770	21.424	26.815	1.00 24.43	S
40	ATOM	2485	OH2	TIP	S1005		35.373	29.094	36.197	1.00 35.97	S
	ATOM	2486	OH2	TIP	S1006		40.815	-6.636	4.389	1.00 43.15	S
	ATOM	2487	OH2	TIP	S1007		44.953	1.286	11.272	1.00 49.45	S
	ATOM	2488	OH2	TIP	S1010		21.004	16.168	27.009	1.00 48.51	S
	ATOM	2489	OH2	TIP	S1011		47.094	41.786	9.243	1.00 50.10	S
45	ATOM	2490	OH2	TIP	S1012		32.479	2.978	14.158	1.00 49.47	S
	ATOM	2491	O12	GLC	G	1	48.557	11.372	-12.279	1.00 40.72	G
	ATOM	2492	C11	GLC	G	1	48.836	12.133	-11.097	1.00 38.05	G
	ATOM	2493	C13	GLC	G	1	49.266	13.554	-11.476	1.00 38.09	G
	ATOM	2494	O14	GLC	G	1	49.559	14.299	-10.292	1.00 33.99	G
50	ATOM	2495	C15	GLC	G	1	48.150	14.257	-12.257	1.00 37.32	G
	ATOM	2496	O16	GLC	G	1	48.574	15.582	-12.604	1.00 36.74	G
	ATOM	2497	O12	GLC	G	2	40.114	-6.634	-6.562	1.00 33.52	G
	ATOM	2498	C11	GLC	G	2	38.967	-6.592	-7.404	1.00 31.05	G
	ATOM	2499	C13	GLC	G	2	37.712	-6.417	-6.552	1.00 31.56	G
55	ATOM	2500	O14	GLC	G	2	36.554	-6.406	-7.389	1.00 30.70	G
	ATOM	2501	C15	GLC	G	2	37.792	-5.109	-5.761	1.00 30.03	G
	ATOM	2502	O16	GLC	G	2	36.609	-4.961	-4.975	1.00 29.66	G
	ATOM	2503	O12	GLC	G	3	44.030	8.243	-13.470	1.00 37.90	G
	ATOM	2504	C11	GLC	G	3	43.950	9.648	-13.690	1.00 38.47	G

	ATOM	2505	C13	GLC	G	3	42.747	9.974	-14.579	1.00	39.52	G
	ATOM	2506	O14	GLC	G	3	41.551	9.526	-13.942	1.00	39.39	G
	ATOM	2507	C15	GLC	G	3	42.878	9.280	-15.934	1.00	41.43	G
	ATOM	2508	O16	GLC	G	3	41.736	9.613	-16.731	1.00	40.78	G
5	ATOM	2509	O12	GLC	G	5	40.556	1.005	2.289	1.00	45.25	G
	ATOM	2510	C11	GLC	G	5	40.966	2.332	1.960	1.00	40.56	G
	ATOM	2511	C13	GLC	G	5	40.187	3.327	2.814	1.00	40.36	G
	ATOM	2512	O14	GLC	G	5	38.791	3.169	2.572	1.00	40.71	G
	ATOM	2513	C15	GLC	G	5	40.619	4.751	2.464	1.00	40.04	G
10	ATOM	2514	O16	GLC	G	5	39.885	5.681	3.256	1.00	36.89	G
	ATOM	2515	O12	GLC	G	6	36.951	22.702	40.046	1.00	63.04	G
	ATOM	2516	C11	GLC	G	6	37.592	21.583	39.422	1.00	62.46	G
	ATOM	2517	C13	GLC	G	6	38.104	21.978	38.030	1.00	61.14	G
	ATOM	2518	O14	GLC	G	6	39.034	23.054	38.168	1.00	61.72	G
15	ATOM	2519	C15	GLC	G	6	36.948	22.429	37.126	1.00	60.51	G
	ATOM	2520	O16	GLC	G	6	35.992	21.372	36.960	1.00	58.61	G
	ATOM	2521	O12	GLC	G	7	37.316	0.281	14.299	1.00	73.45	G
	ATOM	2522	C11	GLC	G	7	37.655	-0.758	15.222	1.00	72.78	G
	ATOM	2523	C13	GLC	G	7	36.592	-1.856	15.157	1.00	72.98	G
20	ATOM	2524	O14	GLC	G	7	35.320	-1.299	15.498	1.00	73.88	G
	ATOM	2525	C15	GLC	G	7	36.924	-2.989	16.134	1.00	73.66	G
	ATOM	2526	O16	GLC	G	7	36.972	-2.493	17.478	1.00	75.38	G
	ATOM	2527	O12	GLC	G	8	51.921	21.898	5.908	1.00	62.51	G
	ATOM	2528	C11	GLC	G	8	52.447	20.871	5.063	1.00	63.42	G
25	ATOM	2529	C13	GLC	G	8	51.476	20.597	3.908	1.00	64.28	G
	ATOM	2530	O14	GLC	G	8	51.297	21.794	3.150	1.00	66.28	G
	ATOM	2531	C15	GLC	G	8	50.121	20.137	4.448	1.00	64.49	G
	ATOM	2532	O16	GLC	G	8	49.233	19.886	3.357	1.00	64.01	G
	ATOM	2533	O12	GLC	G	10	36.044	37.499	29.523	1.00	56.89	G
30	ATOM	2534	C11	GLC	G	10	35.164	36.645	30.259	1.00	56.97	G
	ATOM	2535	C13	GLC	G	10	33.849	36.489	29.494	1.00	56.11	G
	ATOM	2536	O14	GLC	G	10	33.248	37.772	29.308	1.00	56.44	G
	ATOM	2537	C15	GLC	G	10	32.900	35.580	30.277	1.00	55.84	G
	ATOM	2538	O16	GLC	G	10	31.674	35.442	29.557	1.00	55.39	G
35	ATOM	2539	O3G	ATP	N	1	46.280	25.658	5.170	1.00	51.49	N
	ATOM	2540	PG	ATP	N	1	46.464	25.053	3.691	1.00	52.22	N
	ATOM	2541	O1G	ATP	N	1	47.406	23.911	3.763	1.00	51.41	N
	ATOM	2542	O2G	ATP	N	1	46.794	26.182	2.784	1.00	52.07	N
	ATOM	2543	O3B	ATP	N	1	44.976	24.513	3.344	1.00	51.01	N
40	ATOM	2544	PB	ATP	N	1	44.560	22.969	3.605	1.00	50.20	N
	ATOM	2545	O1B	ATP	N	1	43.083	22.898	3.669	1.00	49.41	N
	ATOM	2546	O2B	ATP	N	1	45.345	22.474	4.766	1.00	50.34	N
	ATOM	2547	O3A	ATP	N	1	45.070	22.231	2.255	1.00	47.77	N
	ATOM	2548	PA	ATP	N	1	45.075	20.613	2.121	1.00	42.84	N
45	ATOM	2549	O1A	ATP	N	1	45.547	20.291	0.754	1.00	43.81	N
	ATOM	2550	O2A	ATP	N	1	45.807	20.035	3.270	1.00	45.03	N
	ATOM	2551	O5*	ATP	N	1	43.516	20.223	2.245	1.00	41.73	N
	ATOM	2552	C5*	ATP	N	1	42.528	20.925	1.489	1.00	37.57	N
	ATOM	2553	C4*	ATP	N	1	41.127	20.379	1.776	1.00	39.45	N
50	ATOM	2554	O4*	ATP	N	1	40.907	19.024	1.279	1.00	37.72	N
	ATOM	2555	C3*	ATP	N	1	40.777	20.321	3.251	1.00	38.48	N
	ATOM	2556	O3*	ATP	N	1	40.360	21.615	3.697	1.00	40.42	N
	ATOM	2557	C2*	ATP	N	1	39.608	19.374	3.270	1.00	37.58	N
	ATOM	2558	O2*	ATP	N	1	38.410	20.076	2.924	1.00	35.98	N
55	ATOM	2559	C1*	ATP	N	1	39.939	18.346	2.173	1.00	35.55	N
	ATOM	2560	N9	ATP	N	1	40.628	17.156	2.747	1.00	31.76	N
	ATOM	2561	C8	ATP	N	1	41.864	17.126	3.274	1.00	30.49	N
	ATOM	2562	N7	ATP	N	1	42.143	15.877	3.667	1.00	29.75	N
	ATOM	2563	C5	ATP	N	1	41.088	15.118	3.390	1.00	27.49	N

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     ATOM   2564  C4   ATP N    1    40.125   15.925    2.810   1.00 30.02      N
     ATOM   2565  N3   ATP N    1    38.937   15.389    2.431   1.00 27.11      N
     ATOM   2566  C2   ATP N    1    38.679   14.085    2.615   1.00 25.62      N
     ATOM   2567  N1   ATP N    1    39.597   13.283    3.175   1.00 21.76      N
   5 ATOM   2568  C6   ATP N    1    40.800   13.768    3.571   1.00 23.90      N
     ATOM   2569  N6   ATP N    1    41.698   12.964    4.127   1.00 21.94      N
     ATOM   2570  S    SO4 I    1    58.680    8.493   -0.639   1.00 56.05      I
     ATOM   2571  O1   SO4 I    1    57.956    7.875    0.483   1.00 58.83      I
     ATOM   2572  O2   SO4 I    1    57.886    9.607   -1.188   1.00 57.04      I
  10 ATOM   2573  O3   SO4 I    1    58.906    7.478   -1.683   1.00 57.47      I
     ATOM   2574  O4   SO4 I    1    59.976    9.008   -0.156   1.00 57.51      I
     ATOM   2575  S    SO4 I    2    39.339    4.855    7.057   1.00 84.24      I
     ATOM   2576  O1   SO4 I    2    39.390    6.175    7.711   1.00 85.02      I
     ATOM   2577  O2   SO4 I    2    40.101    4.897    5.797   1.00 84.75      I
  15 ATOM   2578  O3   SO4 I    2    37.936    4.506    6.766   1.00 84.94      I
     ATOM   2579  O4   SO4 I    2    39.931    3.842    7.954   1.00 84.44      I
     ATOM   2580  S    SO4 I    3    38.987   -2.256    3.310   1.00 58.58      I
     ATOM   2581  O1   SO4 I    3    37.734   -1.675    3.827   1.00 59.11      I
     ATOM   2582  O2   SO4 I    3    39.460   -1.454    2.172   1.00 59.91      I
  20 ATOM   2583  O3   SO4 I    3    38.743   -3.640    2.866   1.00 60.97      I
     ATOM   2584  O4   SO4 I    3    40.014   -2.260    4.369   1.00 59.58      I
     ATOM   2585  S    SO4 I    4    34.397    5.289   30.981   1.00 64.34      I
     ATOM   2586  O1   SO4 I    4    33.627    6.528   30.742   1.00 60.43      I
     ATOM   2587  O2   SO4 I    4    34.337    4.427   29.782   1.00 60.11      I
  25 ATOM   2588  O3   SO4 I    4    33.816    4.572   32.133   1.00 64.39      I
     ATOM   2589  O4   SO4 I    4    35.806    5.626   31.277   1.00 63.55      I
     ATOM   2590  S    SO4 I    5    55.074   -6.984   -3.711   1.00 75.40      I
     ATOM   2591  O1   SO4 I    5    54.657   -7.518   -2.399   1.00 74.66      I
     ATOM   2592  O2   SO4 I    5    54.209   -5.845   -4.065   1.00 74.96      I
  30 ATOM   2593  O3   SO4 I    5    54.950   -8.034   -4.742   1.00 74.22      I
     ATOM   2594  O4   SO4 I    5    56.477   -6.532   -3.633   1.00 75.15      I
     ATOM   2595  O2   PO4 P  100    57.362   24.998   13.149   1.00 66.76      P
     ATOM   2596  O3   PO4 P  100    59.399   26.166   13.761   1.00 66.89      P
     ATOM   2597  O4   PO4 P  100    57.761   25.606   15.462   1.00 67.43      P
  35 ATOM   2598  O1   PO4 P  100    57.264   27.325   13.818   1.00 65.91      P
     ATOM   2599  P    PO4 P  100    57.947   26.025   14.048   1.00 66.69      P
     END
```

Example 5: PDK1 fragments

We produced constructs for expression of different forms of PDK1 in bacteria. The constructs were either in TRC vectors, pET-15b vector and pGEX expression vector to enable the expression of GST fused N-terminally to PDK1. PDK1 expressed from pGEX 51-556 (ie residues 51 to 556 of PDK1) was found to be highly degraded.

PDK1 protein was also expressed with N-terminal His tags from vector TRC comprising PDK1 sequences 51-556, 51-404 and 1-360, or pET15b 51-404 and tested for expression levels and activity. The expression was generally low, around 0.2 mg/L culture. The specific activity was lower than the His-tagged 51-556 protein purified from baculovirus cells. In the case of PDK1 51-404 expressed from pET-15b construct the level of expression turned out to be very variable. This was probably due to instability of the plasmid since we produced evidence that after a growth of 0.2 units of absorbance, (as measured in a spectrophotometer at 600 nm wavelength) the cells growing faster in the culture were actually not harbouring the plasmid with ampiciline resistance. The instability of the plasmid can be due to toxicity produced by basal expression of PDK1. Although production in bacteria was the theoretical best expression system to avoid heterogeneity due to the different extent of phosphorylation of the different phosphorylation sites in hPDK1, it was found that the protein was either degraded, expressed to low levels, had 5 times less specific activity, or was possibly toxic.

The His-tagged purified PDK1 51-556 protein obtained from baculovirus expression system was homogeneous as depicted by the appearance of one band after by SDS-PAGE analysis of a sample.

Nevertheless, the analysis after isoelectric focussing revealed a large smear of protein covering several units of pH. This analysis suggested that the protein was not homogeneous in terms of its isoelectric point, possibly due to the number of phosphorylation sites which were not homogeneously phosphorylated. This protein did not crystallise.

We purified to homogeneity a truncated His-Myc tagged PDK1 (51-404) which lacks the N-terminal 50 residues and the C-terminal 152 residues which include the PH domain. This protein, produced by a baculovirus expression system, had similar characteristics to the full length wild type PDK1 in terms of its activity towards the peptide substrate T308tide, its activation by the peptide PIFtide, and the binding to PIFtide (as analysed by BiaCore). The purified protein was screened for crystallisation conditions using Hampton Research kits (144 different conditions). Crystallisation conditions were screened with two concentrations of PDK1, in the presence or absence of PIFtide, Staurosporine, at $20^{\circ}C$ and in the presence of PIFtide at $4^{\circ}C$. No protein crystals were observed after 6 months, suggesting that this construct was not suitable for forming crystals although all other characteristics were similar to wild type protein.

The His-Myc PDK1 51-404 purified protein was also subjected to protease treatments in order to obtain a protease-insensitive molecule for increasing the chances of obtaining a shorter, stable variant of PDK1. Different protease treatments were tested. Treatment with Glu-C produced a polypeptide of approximately 38 KDa which was stable. This PDK1 protein was active and lacked the His-tag and part of the Myc-tag, and possibly part of the C-terminal residues. This protein was also set up for crystallography screenings. Some crystals were obtained using this preparation after 4 months, but they were not followed up.

A protein kinase corresponding to residues PDk1 51-387 was also produced, in an identical vector to that used to produce the protein PDK1 51-359. Interestingly, this protein was similar to wild type and PDK1 51-404, but had extreme problems for concentration using conventional methods. The protein could not be concentrated further than 2.5 mg/ml, and no crystals were obtained using this construct.

The PDK1 protein that finally crystallised is lacking the first 50 aminoacids and was constructed to end at position 359. This protein was stable in the absence of the PH domain and aminoacids that in hPDK1 link the catalytic domain with the PH domain. The construct PDK1 51-359 was also short enough that no other described phosphorylation sites besides activation loop phosphorylation site 241 were present.

Example 6: Structural basis for UCN-01 specificity and PDK1 inhibition

The staurosporine derivative UCN-01 (7- hydroxyl staurosporine) has been reported to be a potent inhibitor for PDK1 and is currently in clinical trials for the treatment of cancer. Here we report the crystal structures of staurosporine and UCN-01 in complex with the kinase domain of PDK1. We show that although staurosporine and UCN-01 interact with the PDK1 active site in an overall similar manner, the UCN-01 7-hydroxylgroup, which is not present on staurosporine, generates direct and water-mediated hydrogen bonds with active site residues. Inhibition data from UCN-01 tested against a panel of 29 different kinases show a different pattern of inhibition compared to staurosporine. We discuss how these differences in inhibition could be attributed to specific interactions with the additional 7-hydroxyl-group as well as by the size of the 7-hydroxyl-binding pocket. This information could lead to opportunities for structure-based optimisation of PDK1 inhibitors.

Insulin and growth factor signalling is mediated by the activation of a lipid kinase, phosphatidylinositol-3-kinase (PI3K), which produces the second messenger molecule phosphatidylinositol(3,4,5)trisphosphate (PtdIns(3,4,5)P) [1]. Upon generation of PtdIns(3,4,5)P, 3-Phosphoinositide Dependent protein Kinase-1 (PDK1) and protein kinase B (PKB, also known as Akt) are co-localised at the plasma membrane through interaction of their Pleckstrin Homology (PH) domains with PtdIns(3,4,5)P [2, 3]. PDK1 activates PKB by phosphorylation of its T-loop (Thr308 in PKB) [4, 5]. PDK1 also activates other protein kinases related to PKB, including isoforms of p70 ribosomal S6 kinase (S6K) [6], serum and glucocorticoid responsive kinases (SGK) [7] and p90 ribosomal S6 kinase (Rsk) [8]. These kinases lack PH domains and do not bind PtdIns(3,4,5)P3, and are thought to be activated by a different mechanism, in which the substrates require a priming phosphorylation in a conserved hydrophobic motif (HM) at their C-terminus (reviewed in [9]). This phosphorylation creates a docking motif that specifically interacts with a pocket on the N-terminal lobe of the PDK1 kinase domain (termed PDK1 interacting fragment (PIF) pocket) [10, 11] bringing PDK1 together with its substrate and enabling PDK1 to phosphorylate these kinases in their T-loop, thereby activating them. A significant number of human cancers possess elevated PtdIns(3,4,5)P levels due to mutations in a number of genes that regulate the production and degradation of this 3-phosphoinositide. One of the most frequently found mutations occurs in the PtdIns(3,4,5)P 3-phosphatase (PTEN) resulting in constitutive activation of PKB and S6K, which are thought to be major contributors to the proliferation and the survival of such tumour cells [12]. Thus, inhibitors of PDK1 have the potential to act as anti-cancer agents as they would be expected to suppress activation of S6K and PKB and inhibit cell growth and induce apoptosis of cancer cells that possess elevated levels of PtdIns(3,4,5)P.

PDK1 consists of an N-terminal kinase domain and a C-terminal PH-domain [13]. The structure of the PDK1 kinase domain has been solved (see the preceding Examples and [11]) and leads to a definition of the residues lining the ATP binding site and an understanding of the PDK1 activation mechanism. The PIFbinding pocket could be identified, together with a specific pocket for the phosphorylated Ser/Thr residue on the HM of substrate kinases. Staurosporine, a natural product ATP-competitive inhibitor, inhibits many kinases in the low nM range [14], and therefore displays a high cytotoxicity [15]. UCN-01 (7-hydroxyl staurosporine) is a derivative with an additional hydroxyl group on the lactam ring (Fig. 1). It was originally described as a PKC-selective inhibitor isolated from Streptomyces sp. cultures [16], although further studies showed it to be more non-specific [14, 17]. UCN-01 potently inhibits the growth and induces apoptosis of many cancer cells and these effects are thought to be unrelated to PKC inhibition [18, 19]. Due to its anti-tumour activity in vivo and in vitro, UCN-01 is currently undergoing clinical trials with positive effects being reported in the phase 1 studies (reviewed in [19]). Recent reports suggested the cell cycle checkpoint kinase Chk1 [20] and PDK1 [21] may be key targets of UCN-01 in inhibiting the growth of cancer cells, as both kinases are inhibited by UCN-01 in the low nM range.

Here we report the structures of the PDK1 kinase domain in complex with staurosporine and UCN-01, demonstrating the presence of a pocket that accommodates the 7-hydroxyl group of UCN- 01. Specificity tests against a panel of 29 kinases shows that although both staurosporine and UCN-01 are relatively non-specific inhibitors, the fingerprint analysis of UCN-01 inhibition with a panel of protein kinases is significantly different from that of staurosporine. We also perform analysis of residues predicted to line the UCN-01 hydroxyl pocket on a number or protein kinases, and propose a

general model that could account for the different sensitivity of protein kinases for staurosporine and UCN-01.

Methods

5   *Expression, purification and crystallisation*

Human PDK1 (residues 51-359) was expressed using a baculovirus mediated infection of the SF21 insect cell line and purified as described in the preceding examples and [11] with the following differences: After elution of the His-tagged protein from the Ni-NTA-agarose beads with 200

10   mM imidazole, the protein was dialysed against 250 mM NaCl, 25 mM Tris pH 7.5, 1 mM DTT for 3 hours at 4°C. Proteolysis with GST-tagged PreScission protease was performed overnight at 4 °C.

For crystals of the PDK1-UCN-01 complex, 100 μl of PDK1 at a

15   concentration of 6.6 mg/ml was mixed with 30 μl UCN-01 (5.3 mM in 50 % ethanol) and incubated on ice for 2 hours. The protein was crystallized using sitting drop vapour diffusion. 1.25 μl of protein solution was mixed with 0.25 μl cobaltous chloride hexahydrate (0.1 M) and 1 μl mother liquor, consisting of 2.1 M ammonium sulphate, 0.1 M Tris-HCl pH 8.5.

20   Hexagonal, rod-shaped crystals grew at 20 °C and reached a maximum size of 0.05 x 0.05 x 0.3 mm after 7 days. After soaking for 3 seconds in a cryo-protection solution (2.1 M ammonium sulphate, 0.1 M Tris-HCl pH 7.2, 25 % glycerol) crystals were frozen in a stream of cold nitrogen.

25   PDK1 in complex with staurosporine was crystallized using the hanging drop technique. Drops consisted of 1μl PDK1 at 7.6 mg/ml, 1 μl mother liquor (2.1 M ammonium sulphate, 0.1 M Tris- HCl pH 7.2) and 0.25 μl staurosporine (10 mM in DMSO). Hexagonal shaped crystals suitable for

data collection appeared after 6 weeks at 20 C. Crystals were soaked in 1.7 M ammonium sulphate, 0.1 M Tris-HCl pH 7.2, 15% glycerol and frozen in a stream of cold nitrogen.

Data collection, structure solution and refinement

Data on the PDK1-staurosporine and PDK1-UCN-01 complexes were collected at the European Synchrotron Radiation Facility (Grenoble, France) beamline ID14-EH4. The temperature of the crystals was maintained at 100 K using a nitrogen cryostream. Data were processed using the HKL package [22] with final statistics shown in Table 3. The structures were solved by rigid body refinement with CNS [23] using the previously determined PDK1 structure (See previous Examples; PDB code 1H1W) [11] as a starting model which resulted in an initial R-factor of 0.306 (R_{free}= 0.284) for PDK1-staurosporine and 0.299 (R_{free}= 0.311) for PDK1-UCN-01. Model building with O [24] and iterative refinement in CNS, including solvent molecules and the T-loop phosphorylation site, resulted in final R-factors as shown in Table 3. The ATP binding site showed well-defined density in the unbiased | F_o|-|F_c|, ϕ_{calc} maps for all atoms of staurosporine and UCN-01, including the 7-hydroxyl group (Fig. 8). CNS topologies and coordinates for the inhibitors were generated with PRODRG [25]. No electron density could be observed for residues 51-72 (N-terminus), residues 231-239 (T-loop) and residue 359 (C-terminus) in the PDK1-UCN-01 complex. Residues 51-71 (N-terminus) and 233-238 (T-loop) were disordered in the PDK1-staurosporine complex.

Determination of inhibition and specificity

Protein kinase assays: PDK1 was assayed for 10 min at 30 °C in a 50 μl assay mixture in 50 mM Tris pH 7.5, 0.1 mM EGTA, 0.1% 2-

mercaptoethanol, containing 100 µM PDK1tide substrate peptide (KTFCGTPEYLAPEVRREPRILSEEEQEMFRDFDYIADWC) (SEQ ID NO:112), 10 mM magnesium acetate, 100 µM [γ-^{32}P]ATP (200 cpm/pmole) as described previously [10]. Other protein kinases employed in Table 5, were assayed as described previously [17, 26].

Results & Discussion

Structures of the staurosporine and UCN-01 complexes

PDK1 (residues 51-359) was co-crystallized with staurosporine and UCN-01, and synchrotron diffraction data on a thin hexagonal needle were collected to 2.3 Å and 2.5 Å resolution, respectively.

In the unbiased $|F_o|$-$|F_c|$, ϕ_{calc} maps well defined (>3.0σ) density could be observed in the ATP binding site of the kinase, covering all staurosporine/UCN-01 atoms including the 7-hydroxyl group (Fig. 8). After initial rounds of protein model building and inclusion of water molecules, the inhibitor molecules were built and refined with full occupancy to average B-factor of 18.5 Å^2 (staurosporine) and 17.3 Å^2(UCN-01). Further refinement resulted in a final PDK1-staurosporine model with R= 0.218 (R_{free}= 0.255) and a final PDK1-UCN-01 model with R = 0.184 (R_{free}= 0.257), both with good stereochemistry (Table 3).

The staurosporine molecule is located in the ATP-binding site (which lies between the N-terminal and C-terminal lobes of kinases [27, 28]), at the same position described for the inhibitor in complex with the closely related (38 % sequence identity) protein kinase A (PKA, [29], PDB code 1STC) (Fig. 8). Hydrophobic residues on both sides of the ATP binding cleft sandwich the heterocyclic moiety of staurosporine, namely Leu88, Val96, Ala109, Leu98 (small lobe) and Thr222, Leu212 of the larger lobe (Fig. 1).

Similar to the PKA-staurosporine complex, the lactam group mimics the interactions of the adenine base in ATP with the protein backbone, where 2 conserved hydrogen bonds are formed between the lactam-nitrogen N6 in staurosporine (nomenclature according to [30]) and the backbone-oxygen of Ser160, and the lactam-oxygen at the C5 position and the backbone-nitrogen of Ala162 (Table 4). An additional hydrogen bond is mimicked in the staurosporine sugar-moiety, where the methyl-amino group contacts oxygen O 2 of Glu166, similar to the hydrogen bond with the ribose in the PDK1-ATP complex [11], and also the backbone carbonyl of Glu209 (Table 4).

The UCN-01 molecule occupies the same position in the ATP binding site as staurosporine (maximum atomic shift = 0.35 Å) (Fig. 9). The same hydrophobic interactions are made to the heterocyclic moiety in the PDK1-staurosporine complex. Hydrogen bonding interactions to the heterocycle and the sugar moiety are also conserved, with similar geometry (Table 4). However, the 7-hydroxyl group of UCN-01 forms several novel hydrogen bonds (Fig. 9, Table 4). It hydrogen bonds directly to $O\gamma 1$ of Thr222 (Fig. 9, Table 4). In addition, an ordered water molecule (B-factor = 24.0 Å^2) is found in a position where it contacts the 7-hydroxyl (distance = 3.0 Å, Table 4) and the oxygen $O\epsilon 1$ of Gln220 (distance = 2.5 Å) the side chain of which is shifted towards the ligand (1.5 Å for Cδ, rotation of 82° around χ_1) compared to the PDK1-STO complex. However, the water molecule is buried in a predominantly hydrophobic pocket, lined by Val143, Leu212 and C$\gamma 2$ of Thr222 (Fig. 9). Val143 also changes its position compared to the PDK1-staurosporine complex (Fig. 9), moving further towards the back of the pocket (shift of 0.7 °A for the Cα carbon, and a rotation of 100° around χ_1) and displaces an ordered water molecule present in the PDK1-staurosporine complex (Fig. 9), and also observed in other kinase-staurosporine complexes [31, 30]. These changes result in more space to

accommodate the bulky 7-hydroxyl group on UCN-01 as indicated by a 6 °A^3 increase in ligand volume (calculated with VOIDOO [32]).

Comparison with Chk1-UCN-01

High resolution data for the Chk1 kinase bound to staurosporine and UCN-01 is available (PDB code 1NVQ [30]). In Chk1, Ser147, the equivalent of Thr222 in PDK1, also hydrogen bonds the UCN-01 7-OH directly. In addition, a water mediated network of hydrogen bonds to UCN-01 is observed. However, in Chk1 the water molecule that hydrogen bonds UCN-01 occupies a different position (shifted 5.2 Å compared to the PDK1-UCN-01 complex). Chk1 appears to have a more extended hydrophilic cavity, as there are 2 additional buried water molecules present also in the Chk1-staurosporine complex. The corresponding residue to Gln220 in PDK1 is a Lys (Lys145) in Chk1, which does not interact with the ligand but points away from it.

UCN-01 inhibition and specificity

PDK1 inhibition by UCN-01 and staurosporine was measured using kinase assays with P^{32}-labelled ATP. PDK1 is inhibited by UCN-01 with an IC_{50} value of 5 nM, and by staurosporine with an IC_{50} of 6.5 nM. As a measure for overall specificity of UCN-01 and staurosporine, the effect of these inhibitors was tested against a panel of 29 protein kinases as described previously [17, 26]. The results are shown in Table 5 as percentage of control activity. These data further confirm that UCN-01 and staurosporine are aspecific inhibitors. UCN-01 at 1 µM concentration reduces the activity of nine kinases in the panel to less than 10%, and of ten others to below 60% of control activity. Staurosporine at 1 µM will inhibit twelve kinases to less than 10% control activity, and another ten to below 60%. Interestingly, however, several of the protein kinases were differentially inhibited by

staurosporine and UCN-01 (Table 5). In an attempt to understand these differences the panel of kinases was divided in four distinct classes: (a) similar inhibition, (b) stronger inhibition by staurosporine than by UCN-01, (c) stronger inhibition by UCN-01 than by staurosporine, and (d) no inhibition (Table 5). As the additional 7-hydroxyl group is the only difference in the ligand molecules (Fig. 8), and staurosporine and UCN-01 occupy the same position with similar interactions in the binding site (Fig.9), the residues contacting the extra hydroxyl group were identified for PDK1 and extracted from a sequence alignment of all protein kinases used in the panel (Table 5). A structure-based sequence alignment of known kinase structures was obtained from [33], which was used to validate the sequence-based sequence alignment (Table 5). The nature of the side chains lining the hydroxyl-pocket could provide a partial explanation for the relative difference between UCN-01 and staurosporine inhibition. Two trends can be observed. For the kinases that are inhibited by UCN-01, there appears to be a preference for a side chain capable of hydrogen bonding the 7-hydroxyl in the hydroxyl-pocket. This is in agreement with the presence of a Thr/Ser residue that hydrogen bonds the 7-hydroxyl in the structures of PDK1 (Thr222) and Chk1 (Ser147) bound to UCN-01. Seven out of ten kinases that are hit equally by staurosporine and UCN-01 (group (a)) appear to have a potential hydrogen bonding residue (Table 5). The kinases that are more potently inhibited by UCN-01 than by staurosporine (group (c)) contain a Thr at the Thr222 equivalent position (Table 5). Five out of nine kinases that are inhibited more potently by staurosporine than by UCN-01 (group (b)) lack a potential hydrogen binding partner in the 7-hydroxyl-pocket (Table 5).

A second trend which appears to determine specificity is the size of the residues lining the hydroxyl-pocket. If the predicted total volume of the residues (calculated with the BL- set of side chain volumes [34]) at the

positions indicated in Table 5 is set against the activity in the presence of UCN-01, a correlation coefficient of 0.6 is obtained. This suggests that despite inaccuracies in this approach, such as the absence of structural information on precise side chain conformation and water molecules, a weak correlation between predicted hydroxyl pocket volume and UCN-01 inhibition exists. For instance, PKA contains a possible hydrogen bonding partner for UCN-01 (Thr183), but Met134 in the centre of the hydroxyl pocket may leave no space for the extra hydroxyl group (Table 5). A similar arrangement of residues can be observed for MAPKAP-K2 (Table 5). This size dependency may also play a role for the protein kinases neither hit by staurosporine nor UCN-01. The sequence alignment shows that the Val143 and Thr222 equivalent residues are replaced by bulkier Leu or Ile residues in several of the Mitogen Activated Protein Kinase families (Table 5). To investigate the effect of these bulkier side chains on the hydroxyl pocket, we, starting from the PDK1 crystal structure, replaced residues Val143 with Ile and Thr222 with Leu in standard side chain rotamers (in O [24]), which indeed resulted in van der Waals clashes with C7 of staurosporine (shortest distances: 2.8 Å for Leu222, 3.5 Å for Ile143), and may therefore explain the lack of susceptibility towards UCN-01 in the Mitogen Activated Protein Kinase families. CDK2 is inhibited by both staurosporine and UCN-01 similarly, however this kinase lacks a hydrogen bonding partner for the 7-hydroxyl and contains a bulky Phe (Phe80) at the Leu159 equivalent position. In a superposition of CDK2-staurosporine structure [31] with PDK1-UCN-01 (RMSD = 1.3Å on Cα atoms) staurosporine is seen to be shifted by 1.2 Å out of the potential hydroxyl pocket due to presence of the bulky Phe80. Interaction of the 7-hydroxyl on UCN-01 was described to be water mediated in CDK2 due to the lack of hydrogen bonding residues [35]. This particular example highlights the limitations of the approach described above. Other examples where none of the described effects account for the observed behaviour are AMPK and

MSK1. Both MSK1 and SGK1 show the same sequence in their hydroxyl-pocket with Thr406/Thr407, respectively, as potential hydrogen bonding partners, but both were placed in different groups. MSK1 activity is abolished by 1 μM staurosporine, but shows residual activity (11 %) with UCN-01. SGK1 activity is at 25% of control activity with 1 μM UCN-01, but twice as high with staurosporine.

Conclusions

UCN-01 was subjected to a specificity analysis against an in-house panel of 29 protein kinases. Contrary to the suggestions of some previous reports, the data show that UCN-01 is not a specific inhibitor as it inhibited more than half of the tested kinases at significant levels. A direct comparison with staurosporine, however, showed a different pattern of inhibition, and was the subject of further analysis. We have reported the crystal structures of PDK1 in complex with the inhibitors staurosporine and UCN-01. Both inhibitors appear to bind to PDK1 in a similar fashion compared to the Chk1-UCN-01 or PKA-staurosporine [29] complex, with additional hydrogen bonding interactions at the UCN-01 7-hydroxyl group. This moiety is hydrogen bonded directly to Thr222 and indirectly via an ordered water molecule to Gln220. A different water-mediated hydrogen bonding network is also observed in other UCN-01 complexes known to date [35, 30], and might serve as a starting point for further structure-based optimisation. The residues around the 7-hydroxyl group ("hydroxyl-pocket") were aligned with known kinase structures and kinases sequences. It is apparent that spatial effects in the identified pocket play a key role in determining UCN-01 inhibition, as does the presence of hydrogen bonding partners for the additional hydroxyl group.

Table 3

Details of data collection & structure refinement. Values between brackets are for the highest resolution shell. Crystals were cryo-cooled to 100 K. All measured data were included in structure refinement.

5

Dataset	Staurosporine	UCN-01
Space group	$P3_221$	$P3_221$
Cell dimensions (Å)	a=124.17 b=124.17 c=47.31	a=123.39 b=123.39 c=47.12
Resolution range (Å)	25-2.30 (2.38-2.30)	25-2.50 (2.59-2.50)
# Observed reflections	31730 (3091)	68515 (6290)
# Unique reflections	18018 (1794)	14395 (1430)
Redundancy	1.8 (1.7)	4.8 (4.4)
I/σI	7.5 (1.8)	4.5 (2.6)
Completeness (%)	95.8 (95.8)	100.0 (99.9)
R_{merge}	0.096 (0.505)	0.167 (0.688)
R_{cryst}, R_{free}	0.218, 0.255	0.189, 0.257
RMSD from ideal geometry		
Bonds (Å)	0.007	0.009
Angles (°)	1.7	1.8
B-factor RMSD (Å) (bonded, main chain)	1.5	1.4
<B> protein (Å)	31.5	27.3
<B> inhibitor (Å)	18.5	17.4

Table 4

Hydrogen bonding between inhibitors and PDK1. Hydrogen bonds between PDK1 and UCN-01 / staurosporine (STO) were calculated with WHAT IF [36] using the HB2 algorithm [37]. This algorithm gives a 0 (no hydrogen bond) to 1 (optimal hydrogen bond) score to reflect hydrogen bond geometry (HB2 column). Donor-acceptor distances are also listed (D-A).

Inhibitor	Protein/H$_2$O	UCN-01 D-A (Å)	UCN-01 HB2	STO D-A (Å)	STO HB2	Comment
O5	N-Ala162	2.8	0.76	3.0	0.81	Conserved
N6	O-Ser162	2.9	0.80	3.1	0.67	Conserved
N4'	O-Glu209	3.2	0.68	3.1	0.39	Conserved
N4'	Oε2-Glu166	2.6	0.63	2.5	0.45	Conserved
O7	Oγ1-Thr222	3.0	0.56			7-hydroxyl
O7	H$_2$O	3.0	0.89			Water mediated to (Oε1-Gln220)

Table 5

Comparison of inhibition by UCN-01 vs. staurosporine and hydroxyl pocket-lining residues.

The indicated protein kinases were assayed at 0.1 mM ATP as described previously [17, 26], in the absence or presence of 1 μM staurosporine (STO) or UCN-01. Results are presented as percentage of kinase activity compared to that in control incubations. The activity results displayed in the two columns are an average of a triplicate determination. Abbreviations not

defined in main text: ROCKII, Rho-dependent protein kinase-II; AMPK, AMP-activated protein kinase; MKK1, MAP-kinase kinase-1; PRAK, p38-regulated/activated protein kinase; PHK, phosphorylase kinase; CK2, Casein kinase-2; CHK1, cell cycle checkpoint kinase-1; DYRK, dual specificity tyrosine phosphorylated and regulated kinase; CSK, C-terminal Src kinase. Residues lining the hydroxyl pocket are shown in the last five columns, as derived from a multiple sequence alignment with T-Coffee [38].

Kinase	STO	UCN-01					
Both STO and UCN-01 inhibit							
PDK1	5 ± 1	0 ± 1	Met134	Val143	Leu159	Gln220	Thr222
CHK1 (1NVQ [30])	3 ± 1	1 ± 0	Ile	Val	Leu	Lys145	Ser147
PKCα	8 ± 2	1 ± 0	Leu	Thr	Met	Lys	Ala
AMPK	0 ± 0	1 ± 1	Leu	Ile	Met	Lys	Ala
PHOS.KINASE (1PHK [39])	2 ± 3	1 ± 2	Leu	Ile	Phe	Lys	Thr
Lck (1QPJ [40])	0 ± 0	3 ± 1	Met	Val	Thr	Lys	Ala
CDK2/cyclin A (1AQ1 [31])	12 ± 12	8 ± 0	Leu	Val	Phe80	Lys	Ala
PKBΔPH (1O6K [41])	8 ± 2	9 ± 1	Leu	Thr	Met	Lys	Thr
ROCK-II	9 ± 5	13 ± 2	Met	Val	Met	Lys	Ala
S6K1	24 ± 8	21 ± 4	Leu	Val	Leu	Lys	Thr
GSK3β (1I09 [42])	29 ± 6	25 ± 5	Met	Val	Leu	Lys	Cys
STO inhibits stronger than UCN-01							
MSK1	1 ± 0	11 ± 0	Leu	Val	Leu	Val	Thr40

					6
DYRK1α	2 ± 2	15 ± 2	Leu	Met	Phe	Lys	Val
PKA (1STC [29])	4 ± 1	27 ± 2	Leu	Val	Met134	Gln	Thr183
MKK1	5 ± 8	53 ± 1	Leu	Val	Met	Lys	Cys
MAPKAP-K2	23 ± 1	60 ± 1	His	Val	Met	Lys	Thr
CSK (1BYG [43])	25 ± 8	58 ± 3	Met	Val	Thr	Lys	Ser
SAPK3/p38γ (1CM8 [44])	37 ± 0	94 ± 8	Leu	Ile	Met	Lys	Leu
SAPK4/p38δ	40 ± 5	100 ± 7	Leu	Ile	Met	Lys	Leu
PRAK	48 ± 1	89 ± 4	His	Val	Met	Lys	Cys

UCN-01 inhibits stronger than STO

MAPKAP-K1a	18 ± 10	1 ± 1	Leu	Val	Leu	Lys	Thr341
SGK1	51 ± 4	22 ± 4	Leu	Val	Leu	Val	Thr407

Neither UCN-01 nor STO inhibits

MAPK2/ERK2 (1ERK [45])	100 ± 4	107 ± 5	Leu	Ile	Gln	Lys	Cys
JNKSAPK1c	91 ± 3	112 ± 6	Met	Ile	Met	Lys	Leu
SAPK2α/p38 (1P38 [46])	76 ± 4	107 ± 5	Leu	Ile	Thr	Lys	Leu
SAPK2β/p38β2	84 ± 11	106 ± 4	Leu	Ile	Thr	Arg	Leu
CK2 (1F0Q [47])	95 ± 4	102 ± 11	Leu	Val	Phe	Arg	Ile
CK1 (1CKI [48])	95 ± 11	96 ± 0	Tyr	Pro	Met	Tyr	Ile

NEK6	109 ± 2	80 ± 7	Leu	Ile	Leu	Lys	Gly

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Example 7: Co-ordinates for PDK1 fragment co-crystallised with Staurosporine

```
      REMARK coordinates from restrained individual B-factor refinement
      REMARK refinement resolution: 25.0 - 2.30 A
 5    REMARK starting r= 0.2196 free_r= 0.2545
      REMARK final    r= 0.2182 free_r= 0.2553
      REMARK B rmsd for bonded mainchain atoms=  1.536  target= 1.5
      REMARK B rmsd for bonded sidechain atoms=  2.154  target= 2.0
      REMARK B rmsd for angle mainchain atoms=  2.576  target= 2.0
10    REMARK B rmsd for angle sidechain atoms=  3.220  target= 2.5
      REMARK rweight=  0.1000 (with wa= 2.58634)
      REMARK target= mlf  steps= 30
      REMARK sg= P3(2)21 a= 124.172 b= 124.172 c= 47.314 alpha= 90 beta= 90
      gamma= 120
15    REMARK parameter file 1  : /dd1/david/projects/MY_CNS/prot.par
      REMARK parameter file 2  : /dd1/david/projects/MY_CNS/sto.par
      REMARK parameter file 3  : CNS_TOPPAR:water_rep.param
      REMARK parameter file 4  : CNS_TOPPAR:ion.param
      REMARK parameter file 5  : /dd1/david/projects/MY_CNS/glycerol.par
20    REMARK molecular structure file: ../generate/alternate.mtf
      REMARK input coordinates: ../minimize/minimize.pdb
      REMARK reflection file= ../../1/hkl/cns.hkl
      REMARK ncs= none
      REMARK B-correction resolution: 6.0 - 2.30
25    REMARK initial B-factor correction applied to fobs :
      REMARK   B11=  -4.525 B22=  -4.525 B33=   9.049
      REMARK   B12=  -1.949 B13=   0.000 B23=   0.000
      REMARK B-factor correction applied to coordinate array B:   -0.209
      REMARK bulk solvent: density level= 0.340909 e/A^3, B-factor= 36.8807
30    A^2
      REMARK reflections with |Fobs|/sigma_F < 0.0 rejected
      REMARK reflections with |Fobs| > 10000 * rms(Fobs) rejected
      REMARK theoretical total number of refl. in resol. range:   18858 (
      100.0 % )
35    REMARK number of unobserved reflections (no entry or |F|=0):   846 (
      4.5 % )
      REMARK number of reflections rejected:                          0 (
      0.0 % )
      REMARK total number of reflections used:                    18012 (
40    95.5 % )
      REMARK number of reflections in working set:                17259 (
      91.5 % )
      REMARK number of reflections in test set:                     753 (
      4.0 % )
45    CRYST1  124.172  124.172   47.314  90.00  90.00 120.00 P 32 2 1
      REMARK FILENAME="bindividual.pdb"
      REMARK DATE:30-Jan-2003  19:44:02       created by user: david
      REMARK VERSION:1.0
      ATOM      1  CB  PRO A  72      64.267  -7.345  13.422  1.00 74.69 A
50    ATOM      2  CG  PRO A  72      63.278  -8.432  13.027  1.00 74.97 A
      ATOM      3  C   PRO A  72      65.866  -6.007  12.013  1.00 73.72 A
      ATOM      4  O   PRO A  72      66.500  -6.002  10.955  1.00 73.74 A
      ATOM      5  N   PRO A  72      64.256  -7.651  11.034  1.00 74.67 A
      ATOM      6  CD  PRO A  72      63.762  -8.901  11.640  1.00 75.33 A
55    ATOM      7  CA  PRO A  72      64.474  -6.639  12.090  1.00 74.30 A
      ATOM      8  N   GLN A  73      66.329  -5.474  13.141  1.00 72.17 A
      ATOM      9  CA  GLN A  73      67.635  -4.829  13.221  1.00 70.49 A
```

	ATOM	10	CB	GLN A	73	67.570	-3.424	12.611	1.00	69.71	A
	ATOM	11	CG	GLN A	73	66.670	-2.458	13.363	1.00	68.72	A
	ATOM	12	CD	GLN A	73	66.722	-1.054	12.795	0.00	69.01	A
	ATOM	13	OE1	GLN A	73	67.785	-0.435	12.735	0.00	68.92	A
5	ATOM	14	NE2	GLN A	73	65.571	-0.541	12.376	0.00	68.92	A
	ATOM	15	C	GLN A	73	68.057	-4.728	14.683	1.00	69.53	A
	ATOM	16	O	GLN A	73	67.267	-5.015	15.585	1.00	69.69	A
	ATOM	17	N	PRO A	74	69.313	-4.321	14.940	1.00	68.34	A
	ATOM	18	CD	PRO A	74	70.411	-4.026	13.999	1.00	67.68	A
10	ATOM	19	CA	PRO A	74	69.769	-4.204	16.330	1.00	67.15	A
	ATOM	20	CB	PRO A	74	71.198	-3.675	16.178	1.00	67.56	A
	ATOM	21	CG	PRO A	74	71.635	-4.254	14.855	1.00	67.46	A
	ATOM	22	C	PRO A	74	68.866	-3.240	17.105	1.00	65.27	A
	ATOM	23	O	PRO A	74	68.496	-2.186	16.584	1.00	65.27	A
15	ATOM	24	N	ARG A	75	68.506	-3.598	18.337	1.00	62.56	A
	ATOM	25	CA	ARG A	75	67.642	-2.730	19.136	1.00	59.53	A
	ATOM	26	CB	ARG A	75	67.543	-3.228	20.582	1.00	62.40	A
	ATOM	27	CG	ARG A	75	66.120	-3.565	21.023	1.00	64.22	A
	ATOM	28	CD	ARG A	75	66.020	-3.746	22.537	1.00	66.65	A
20	ATOM	29	NE	ARG A	75	64.741	-4.332	22.943	1.00	68.76	A
	ATOM	30	CZ	ARG A	75	64.390	-4.572	24.204	1.00	70.18	A
	ATOM	31	NH1	ARG A	75	65.218	-4.272	25.197	1.00	70.31	A
	ATOM	32	NH2	ARG A	75	63.213	-5.125	24.477	1.00	71.64	A
	ATOM	33	C	ARG A	75	68.184	-1.306	19.126	1.00	55.61	A
25	ATOM	34	O	ARG A	75	69.386	-1.082	18.961	1.00	55.58	A
	ATOM	35	N	LYS A	76	67.294	-0.341	19.295	1.00	50.06	A
	ATOM	36	CA	LYS A	76	67.704	1.050	19.297	1.00	45.50	A
	ATOM	37	CB	LYS A	76	66.498	1.941	19.594	1.00	45.42	A
	ATOM	38	CG	LYS A	76	66.404	3.192	18.735	1.00	45.70	A
30	ATOM	39	CD	LYS A	76	66.329	2.829	17.257	1.00	44.53	A
	ATOM	40	CE	LYS A	76	66.030	4.045	16.396	1.00	44.45	A
	ATOM	41	NZ	LYS A	76	66.091	3.733	14.939	1.00	43.30	A
	ATOM	42	C	LYS A	76	68.783	1.251	20.359	1.00	42.73	A
	ATOM	43	O	LYS A	76	68.715	0.681	21.447	1.00	42.46	A
35	ATOM	44	N	LYS A	77	69.793	2.046	20.038	1.00	39.63	A
	ATOM	45	CA	LYS A	77	70.851	2.309	20.995	1.00	36.33	A
	ATOM	46	CB	LYS A	77	72.139	2.670	20.267	1.00	36.33	A
	ATOM	47	CG	LYS A	77	72.655	1.570	19.353	1.00	36.55	A
	ATOM	48	CD	LYS A	77	74.005	1.945	18.785	1.00	35.61	A
40	ATOM	49	CE	LYS A	77	74.491	0.932	17.766	1.00	38.34	A
	ATOM	50	NZ	LYS A	77	74.706	-0.419	18.354	1.00	38.65	A
	ATOM	51	C	LYS A	77	70.413	3.459	21.889	1.00	35.52	A
	ATOM	52	O	LYS A	77	69.475	4.190	21.557	1.00	32.62	A
	ATOM	53	N	ARG A	78	71.097	3.608	23.020	1.00	34.95	A
45	ATOM	54	CA	ARG A	78	70.801	4.654	23.991	1.00	33.79	A
	ATOM	55	CB	ARG A	78	69.917	4.094	25.114	1.00	35.78	A
	ATOM	56	CG	ARG A	78	70.211	2.652	25.483	1.00	38.18	A
	ATOM	57	CD	ARG A	78	69.036	2.040	26.239	1.00	38.81	A
	ATOM	58	NE	ARG A	78	68.995	0.578	26.160	0.00	38.43	A
50	ATOM	59	CZ	ARG A	78	69.889	-0.232	26.719	0.00	38.44	A
	ATOM	60	NH1	ARG A	78	70.906	0.274	27.401	0.00	38.37	A
	ATOM	61	NH2	ARG A	78	69.760	-1.549	26.610	0.00	38.37	A
	ATOM	62	C	ARG A	78	72.099	5.230	24.544	1.00	31.96	A
	ATOM	63	O	ARG A	78	73.133	4.576	24.515	1.00	32.75	A
55	ATOM	64	N	PRO A	79	72.060	6.470	25.055	1.00	30.51	A
	ATOM	65	CD	PRO A	79	70.844	7.272	25.274	1.00	27.35	A
	ATOM	66	CA	PRO A	79	73.236	7.150	25.611	1.00	29.82	A
	ATOM	67	CB	PRO A	79	72.626	8.326	26.365	1.00	28.52	A
	ATOM	68	CG	PRO A	79	71.418	8.628	25.559	1.00	29.89	A

ATOM	69	C	PRO	A	79	74.129	6.298	26.510	1.00	30.92	A
ATOM	70	O	PRO	A	79	75.356	6.357	26.412	1.00	33.32	A
ATOM	71	N	GLU	A	80	73.516	5.510	27.383	1.00	29.85	A
ATOM	72	CA	GLU	A	80	74.273	4.677	28.300	1.00	31.98	A
ATOM	73	CB	GLU	A	80	73.327	3.941	29.242	1.00	34.31	A
ATOM	74	CG	GLU	A	80	72.697	2.710	28.622	1.00	41.92	A
ATOM	75	CD	GLU	A	80	71.205	2.626	28.872	1.00	44.52	A
ATOM	76	OE1	GLU	A	80	70.461	3.466	28.317	1.00	46.38	A
ATOM	77	OE2	GLU	A	80	70.780	1.721	29.625	1.00	46.03	A
ATOM	78	C	GLU	A	80	75.157	3.663	27.578	1.00	30.62	A
ATOM	79	O	GLU	A	80	76.101	3.144	28.170	1.00	30.21	A
ATOM	80	N	ASP	A	81	74.859	3.378	26.312	1.00	28.14	A
ATOM	81	CA	ASP	A	81	75.659	2.417	25.548	1.00	27.32	A
ATOM	82	CB	ASP	A	81	74.938	1.990	24.253	1.00	27.75	A
ATOM	83	CG	ASP	A	81	73.612	1.275	24.512	1.00	30.45	A
ATOM	84	OD1	ASP	A	81	73.495	0.549	25.525	1.00	30.76	A
ATOM	85	OD2	ASP	A	81	72.686	1.424	23.686	1.00	30.74	A
ATOM	86	C	ASP	A	81	77.026	2.990	25.166	1.00	26.35	A
ATOM	87	O	ASP	A	81	77.895	2.266	24.680	1.00	25.33	A
ATOM	88	N	PHE	A	82	77.217	4.283	25.404	1.00	24.95	A
ATOM	89	CA	PHE	A	82	78.457	4.948	25.035	1.00	23.57	A
ATOM	90	CB	PHE	A	82	78.168	6.040	23.991	1.00	23.02	A
ATOM	91	CG	PHE	A	82	77.507	5.534	22.742	1.00	23.64	A
ATOM	92	CD1	PHE	A	82	78.270	5.059	21.680	1.00	23.15	A
ATOM	93	CD2	PHE	A	82	76.123	5.504	22.640	1.00	23.41	A
ATOM	94	CE1	PHE	A	82	77.670	4.559	20.540	1.00	23.43	A
ATOM	95	CE2	PHE	A	82	75.504	5.003	21.498	1.00	24.29	A
ATOM	96	CZ	PHE	A	82	76.283	4.527	20.444	1.00	25.15	A
ATOM	97	C	PHE	A	82	79.199	5.609	26.186	1.00	24.39	A
ATOM	98	O	PHE	A	82	78.647	5.847	27.259	1.00	22.78	A
ATOM	99	N	LYS	A	83	80.471	5.896	25.932	1.00	22.40	A
ATOM	100	CA	LYS	A	83	81.294	6.615	26.869	1.00	23.38	A
ATOM	101	CB	LYS	A	83	82.554	5.834	27.250	1.00	24.29	A
ATOM	102	CG	LYS	A	83	83.453	6.594	28.227	1.00	27.32	A
ATOM	103	CD	LYS	A	83	84.411	5.675	28.988	1.00	31.40	A
ATOM	104	CE	LYS	A	83	85.321	4.906	28.044	0.00	30.06	A
ATOM	105	NZ	LYS	A	83	86.145	5.819	27.207	0.00	30.54	A
ATOM	106	C	LYS	A	83	81.656	7.847	26.046	1.00	24.47	A
ATOM	107	O	LYS	A	83	82.518	7.787	25.162	1.00	26.09	A
ATOM	108	N	PHE	A	84	80.965	8.951	26.309	1.00	21.59	A
ATOM	109	CA	PHE	A	84	81.211	10.182	25.583	1.00	21.61	A
ATOM	110	CB	PHE	A	84	80.073	11.169	25.811	1.00	20.62	A
ATOM	111	CG	PHE	A	84	78.794	10.757	25.159	1.00	20.05	A
ATOM	112	CD1	PHE	A	84	77.915	9.905	25.805	1.00	18.27	A
ATOM	113	CD2	PHE	A	84	78.498	11.176	23.868	1.00	19.96	A
ATOM	114	CE1	PHE	A	84	76.764	9.473	25.183	1.00	19.47	A
ATOM	115	CE2	PHE	A	84	77.346	10.748	23.233	1.00	21.09	A
ATOM	116	CZ	PHE	A	84	76.475	9.894	23.890	1.00	20.64	A
ATOM	117	C	PHE	A	84	82.525	10.820	25.966	1.00	22.27	A
ATOM	118	O	PHE	A	84	82.900	10.822	27.129	1.00	24.09	A
ATOM	119	N	GLY	A	85	83.213	11.371	24.972	1.00	22.72	A
ATOM	120	CA	GLY	A	85	84.496	12.007	25.203	1.00	22.66	A
ATOM	121	C	GLY	A	85	84.540	13.481	24.839	1.00	22.72	A
ATOM	122	O	GLY	A	85	83.622	14.228	25.158	1.00	22.51	A
ATOM	123	N	LYS	A	86	85.608	13.894	24.162	1.00	22.49	A
ATOM	124	CA	LYS	A	86	85.794	15.291	23.784	1.00	22.53	A
ATOM	125	CB	LYS	A	86	87.238	15.530	23.333	1.00	24.44	A
ATOM	126	CG	LYS	A	86	87.617	14.804	22.051	1.00	26.94	A
ATOM	127	CD	LYS	A	86	89.033	15.120	21.594	1.00	29.52	A

	ATOM	128	CE	LYS	A	86	89.166	16.571	21.154	1.00	35.93	A
	ATOM	129	NZ	LYS	A	86	90.505	16.892	20.553	1.00	38.21	A
	ATOM	130	C	LYS	A	86	84.857	15.798	22.699	1.00	23.09	A
	ATOM	131	O	LYS	A	86	84.295	15.032	21.923	1.00	22.85	A
5	ATOM	132	N	ILE	A	87	84.702	17.114	22.664	1.00	22.28	A
	ATOM	133	CA	ILE	A	87	83.867	17.780	21.683	1.00	21.22	A
	ATOM	134	CB	ILE	A	87	83.429	19.170	22.204	1.00	22.05	A
	ATOM	135	CG2	ILE	A	87	82.792	19.993	21.076	1.00	17.65	A
	ATOM	136	CG1	ILE	A	87	82.493	18.998	23.406	1.00	21.65	A
10	ATOM	137	CD1	ILE	A	87	82.159	20.300	24.118	1.00	18.47	A
	ATOM	138	C	ILE	A	87	84.707	17.963	20.418	1.00	21.83	A
	ATOM	139	O	ILE	A	87	85.782	18.543	20.470	1.00	21.99	A
	ATOM	140	N	LEU	A	88	84.226	17.463	19.288	1.00	22.57	A
	ATOM	141	CA	LEU	A	88	84.964	17.614	18.039	1.00	22.76	A
15	ATOM	142	CB	LEU	A	88	84.586	16.515	17.044	1.00	20.65	A
	ATOM	143	CG	LEU	A	88	84.899	15.107	17.535	1.00	20.09	A
	ATOM	144	CD1	LEU	A	88	84.455	14.082	16.502	1.00	17.42	A
	ATOM	145	CD2	LEU	A	88	86.392	15.004	17.813	1.00	17.76	A
	ATOM	146	C	LEU	A	88	84.657	18.964	17.428	1.00	23.53	A
20	ATOM	147	O	LEU	A	88	85.512	19.577	16.794	1.00	24.73	A
	ATOM	148	N	GLY	A	89	83.430	19.428	17.619	1.00	24.20	A
	ATOM	149	CA	GLY	A	89	83.057	20.710	17.062	1.00	28.57	A
	ATOM	150	C	GLY	A	89	81.649	21.131	17.431	1.00	32.57	A
	ATOM	151	O	GLY	A	89	80.834	20.318	17.882	1.00	32.78	A
25	ATOM	152	N	GLU	A	90	81.363	22.412	17.224	1.00	35.17	A
	ATOM	153	CA	GLU	A	90	80.063	22.964	17.542	1.00	39.17	A
	ATOM	154	CB	GLU	A	90	80.168	23.853	18.784	1.00	41.47	A
	ATOM	155	CG	GLU	A	90	80.112	23.061	20.082	1.00	47.18	A
	ATOM	156	CD	GLU	A	90	80.422	23.893	21.313	1.00	50.49	A
30	ATOM	157	OE1	GLU	A	90	81.610	24.228	21.526	1.00	51.41	A
	ATOM	158	OE2	GLU	A	90	79.476	24.210	22.067	1.00	53.44	A
	ATOM	159	C	GLU	A	90	79.436	23.743	16.402	1.00	40.69	A
	ATOM	160	O	GLU	A	90	80.110	24.185	15.471	1.00	40.64	A
	ATOM	161	N	GLY	A	91	78.121	23.881	16.488	1.00	42.58	A
35	ATOM	162	CA	GLY	A	91	77.363	24.618	15.503	1.00	43.40	A
	ATOM	163	C	GLY	A	91	76.303	25.335	16.306	1.00	44.83	A
	ATOM	164	O	GLY	A	91	76.154	25.083	17.507	1.00	43.64	A
	ATOM	165	N	SER	A	92	75.579	26.244	15.669	1.00	47.22	A
	ATOM	166	CA	SER	A	92	74.522	26.969	16.366	1.00	48.94	A
40	ATOM	167	CB	SER	A	92	73.961	28.066	15.461	1.00	51.50	A
	ATOM	168	OG	SER	A	92	73.663	27.541	14.175	1.00	54.98	A
	ATOM	169	C	SER	A	92	73.454	25.928	16.625	1.00	47.87	A
	ATOM	170	O	SER	A	92	72.745	25.950	17.635	1.00	47.78	A
	ATOM	171	N	PHE	A	93	73.392	24.994	15.689	1.00	46.49	A
45	ATOM	172	CA	PHE	A	93	72.434	23.909	15.697	1.00	46.02	A
	ATOM	173	CB	PHE	A	93	72.297	23.369	14.263	1.00	49.54	A
	ATOM	174	CG	PHE	A	93	73.588	23.398	13.459	1.00	50.29	A
	ATOM	175	CD1	PHE	A	93	74.301	22.229	13.209	1.00	52.29	A
	ATOM	176	CD2	PHE	A	93	74.058	24.593	12.915	1.00	51.94	A
50	ATOM	177	CE1	PHE	A	93	75.459	22.245	12.424	1.00	52.28	A
	ATOM	178	CE2	PHE	A	93	75.209	24.622	12.135	1.00	52.58	A
	ATOM	179	CZ	PHE	A	93	75.911	23.443	11.887	1.00	53.99	A
	ATOM	180	C	PHE	A	93	72.700	22.754	16.662	1.00	43.48	A
	ATOM	181	O	PHE	A	93	71.772	22.245	17.292	1.00	42.15	A
55	ATOM	182	N	SER	A	94	73.955	22.343	16.796	1.00	39.99	A
	ATOM	183	CA	SER	A	94	74.245	21.206	17.655	1.00	36.12	A
	ATOM	184	CB	SER	A	94	73.839	19.937	16.921	1.00	38.79	A
	ATOM	185	OG	SER	A	94	74.549	19.863	15.695	1.00	40.39	A
	ATOM	186	C	SER	A	94	75.697	21.066	18.083	1.00	32.29	A

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     ATOM   188  N    THR A  95    76.006  19.909  18.655  1.00 28.50 A
     ATOM   189  CA   THR A  95    77.350  19.614  19.116  1.00 26.86 A
     ATOM   190  CB   THR A  95    77.432  19.642  20.652  1.00 27.90 A
  5  ATOM   191  OG1  THR A  95    76.907  20.882  21.136  1.00 32.56 A
     ATOM   192  CG2  THR A  95    78.874  19.502  21.112  1.00 27.77 A
     ATOM   193  C    THR A  95    77.757  18.225  18.653  1.00 23.70 A
     ATOM   194  O    THR A  95    76.971  17.287  18.724  1.00 24.35 A
     ATOM   195  N    VAL A  96    78.991  18.100  18.184  1.00 22.75 A
 10  ATOM   196  CA   VAL A  96    79.505  16.813  17.733  1.00 20.60 A
     ATOM   197  CB   VAL A  96    80.139  16.909  16.336  1.00 17.79 A
     ATOM   198  CG1  VAL A  96    80.625  15.530  15.898  1.00 18.21 A
     ATOM   199  CG2  VAL A  96    79.131  17.447  15.344  1.00 13.79 A
     ATOM   200  C    VAL A  96    80.566  16.351  18.716  1.00 21.23 A
 15  ATOM   201  O    VAL A  96    81.600  17.006  18.889  1.00 22.12 A
     ATOM   202  N    VAL A  97    80.310  15.220  19.362  1.00 22.06 A
     ATOM   203  CA   VAL A  97    81.244  14.690  20.345  1.00 24.07 A
     ATOM   204  CB   VAL A  97    80.592  14.680  21.743  1.00 24.91 A
     ATOM   205  CG1  VAL A  97    79.199  14.124  21.649  1.00 28.97 A
 20  ATOM   206  CG2  VAL A  97    81.422  13.859  22.715  1.00 27.97 A
     ATOM   207  C    VAL A  97    81.748  13.298  20.002  1.00 23.47 A
     ATOM   208  O    VAL A  97    81.017  12.491  19.436  1.00 26.62 A
     ATOM   209  N    LEU A  98    83.007  13.024  20.329  1.00 22.92 A
     ATOM   210  CA   LEU A  98    83.586  11.713  20.063  1.00 23.27 A
 25  ATOM   211  CB   LEU A  98    85.117  11.777  20.110  1.00 21.94 A
     ATOM   212  CG   LEU A  98    85.932  10.495  19.854  1.00 22.83 A
     ATOM   213  CD1  LEU A  98    85.606   9.924  18.486  1.00 23.24 A
     ATOM   214  CD2  LEU A  98    87.422  10.802  19.945  1.00 21.21 A
     ATOM   215  C    LEU A  98    83.069  10.782  21.144  1.00 23.95 A
 30  ATOM   216  O    LEU A  98    83.143  11.099  22.322  1.00 26.02 A
     ATOM   217  N    ALA A  99    82.523   9.645  20.738  1.00 24.41 A
     ATOM   218  CA   ALA A  99    81.999   8.677  21.686  1.00 23.76 A
     ATOM   219  CB   ALA A  99    80.485   8.692  21.668  1.00 20.64 A
     ATOM   220  C    ALA A  99    82.502   7.282  21.357  1.00 26.42 A
 35  ATOM   221  O    ALA A  99    82.792   6.951  20.195  1.00 26.78 A
     ATOM   222  N    ARG A 100    82.602   6.462  22.394  1.00 26.77 A
     ATOM   223  CA   ARG A 100    83.055   5.094  22.238  1.00 26.80 A
     ATOM   224  CB   ARG A 100    84.362   4.897  23.001  1.00 28.29 A
     ATOM   225  CG   ARG A 100    84.967   3.522  22.853  1.00 33.87 A
 40  ATOM   226  CD   ARG A 100    86.281   3.447  23.617  1.00 38.01 A
     ATOM   227  NE   ARG A 100    87.337   4.240  22.983  1.00 41.22 A
     ATOM   228  CZ   ARG A 100    87.932   3.917  21.837  1.00 41.46 A
     ATOM   229  NH1  ARG A 100    87.580   2.813  21.190  1.00 41.28 A
     ATOM   230  NH2  ARG A 100    88.887   4.692  21.339  1.00 43.39 A
 45  ATOM   231  C    ARG A 100    81.970   4.167  22.770  1.00 24.32 A
     ATOM   232  O    ARG A 100    81.583   4.251  23.934  1.00 25.42 A
     ATOM   233  N    GLU A 101    81.456   3.308  21.900  1.00 22.41 A
     ATOM   234  CA   GLU A 101    80.417   2.367  22.281  1.00 22.87 A
     ATOM   235  CB   GLU A 101    79.787   1.775  21.025  1.00 21.96 A
 50  ATOM   236  CG   GLU A 101    78.819   0.652  21.292  1.00 24.68 A
     ATOM   237  CD   GLU A 101    78.203   0.137  20.018  1.00 28.27 A
     ATOM   238  OE1  GLU A 101    78.965  -0.113  19.057  1.00 28.96 A
     ATOM   239  OE2  GLU A 101    76.963  -0.022  19.971  1.00 29.77 A
     ATOM   240  C    GLU A 101    81.015   1.261  23.151  1.00 23.59 A
 55  ATOM   241  O    GLU A 101    81.945   0.574  22.738  1.00 24.80 A
     ATOM   242  N    LEU A 102    80.475   1.088  24.351  1.00 26.09 A
     ATOM   243  CA   LEU A 102    80.982   0.083  25.289  1.00 28.74 A

     ATOM   244  CB   LEU A 102    80.173   0.110  26.593  1.00 30.16 A
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	ATOM	245	CG	LEU A 102	80.347	1.308	27.532	1.00	34.19 A
	ATOM	246	CD1	LEU A 102	81.824	1.692	27.599	1.00	33.27 A
	ATOM	247	CD2	LEU A 102	79.527	2.477	27.046	1.00	34.46 A
	ATOM	248	C	LEU A 102	81.042	-1.359	24.791	1.00	28.32 A
5	ATOM	249	O	LEU A 102	82.067	-2.024	24.916	1.00	29.83 A
	ATOM	250	N	ALA A 103	79.948	-1.841	24.226	1.00	27.34 A
	ATOM	251	CA	ALA A 103	79.887	-3.218	23.763	1.00	27.81 A
	ATOM	252	CB	ALA A 103	78.466	-3.549	23.367	1.00	27.48 A
	ATOM	253	C	ALA A 103	80.828	-3.593	22.624	1.00	27.42 A
10	ATOM	254	O	ALA A 103	81.172	-4.765	22.463	1.00	28.68 A
	ATOM	255	N	THR A 104	81.257	-2.612	21.842	1.00	24.97 A
	ATOM	256	CA	THR A 104	82.105	-2.907	20.695	1.00	23.79 A
	ATOM	257	CB	THR A 104	81.441	-2.472	19.393	1.00	22.01 A
	ATOM	258	OG1	THR A 104	81.355	-1.041	19.379	1.00	23.91 A
15	ATOM	259	CG2	THR A 104	80.051	-3.069	19.261	1.00	17.30 A
	ATOM	260	C	THR A 104	83.444	-2.221	20.712	1.00	25.00 A
	ATOM	261	O	THR A 104	84.350	-2.616	19.972	1.00	25.02 A
	ATOM	262	N	SER A 105	83.551	-1.172	21.525	1.00	24.89 A
	ATOM	263	CA	SER A 105	84.775	-0.394	21.616	1.00	24.55 A
20	ATOM	264	CB	SER A 105	85.979	-1.334	21.732	1.00	26.36 A
	ATOM	265	OG	SER A 105	87.143	-0.621	22.090	1.00	32.45 A
	ATOM	266	C	SER A 105	84.916	0.514	20.374	1.00	23.38 A
	ATOM	267	O	SER A 105	85.931	1.175	20.188	1.00	24.92 A
	ATOM	268	N	ARG A 106	83.888	0.546	19.531	1.00	20.51 A
25	ATOM	269	CA	ARG A 106	83.906	1.372	18.323	1.00	19.31 A
	ATOM	270	CB	ARG A 106	82.778	0.947	17.370	1.00	19.05 A
	ATOM	271	CG	ARG A 106	83.099	-0.283	16.520	1.00	15.69 A
	ATOM	272	CD	ARG A 106	81.853	-0.804	15.832	1.00	19.45 A
	ATOM	273	NE	ARG A 106	82.144	-1.838	14.846	1.00	20.98 A
30	ATOM	274	CZ	ARG A 106	81.234	-2.673	14.354	1.00	21.77 A
	ATOM	275	NH1	ARG A 106	79.974	-2.599	14.768	1.00	19.65 A
	ATOM	276	NH2	ARG A 106	81.577	-3.560	13.427	1.00	21.43 A
	ATOM	277	C	ARG A 106	83.760	2.858	18.624	1.00	17.84 A
	ATOM	278	O	ARG A 106	83.022	3.234	19.525	1.00	15.87 A
35	ATOM	279	N	GLU A 107	84.463	3.691	17.863	1.00	18.23 A
	ATOM	280	CA	GLU A 107	84.395	5.144	18.039	1.00	22.75 A
	ATOM	281	CB	GLU A 107	85.773	5.800	17.929	1.00	23.58 A
	ATOM	282	CG	GLU A 107	86.828	5.254	18.859	1.00	32.15 A
	ATOM	283	CD	GLU A 107	88.066	6.131	18.878	1.00	35.04 A
40	ATOM	284	OE1	GLU A 107	88.145	7.019	19.755	1.00	36.99 A
	ATOM	285	OE2	GLU A 107	88.949	5.944	18.007	1.00	37.54 A
	ATOM	286	C	GLU A 107	83.514	5.787	16.982	1.00	21.00 A
	ATOM	287	O	GLU A 107	83.709	5.577	15.787	1.00	21.37 A
	ATOM	288	N	TYR A 108	82.570	6.593	17.437	1.00	19.48 A
45	ATOM	289	CA	TYR A 108	81.652	7.298	16.559	1.00	18.30 A
	ATOM	290	CB	TYR A 108	80.228	6.791	16.754	1.00	17.52 A
	ATOM	291	CG	TYR A 108	79.993	5.373	16.309	1.00	22.75 A
	ATOM	292	CD1	TYR A 108	79.727	5.075	14.972	1.00	20.94 A
	ATOM	293	CE1	TYR A 108	79.492	3.765	14.571	1.00	23.91 A
50	ATOM	294	CD2	TYR A 108	80.019	4.324	17.231	1.00	19.41 A
	ATOM	295	CE2	TYR A 108	79.788	3.026	16.845	1.00	19.33 A
	ATOM	296	CZ	TYR A 108	79.527	2.744	15.521	1.00	23.13 A
	ATOM	297	OH	TYR A 108	79.333	1.438	15.143	1.00	23.65 A
	ATOM	298	C	TYR A 108	81.660	8.777	16.906	1.00	18.00 A
55	ATOM	299	O	TYR A 108	81.929	9.161	18.046	1.00	18.12 A
	ATOM	300	N	ALA A 109	81.370	9.603	15.912	1.00	17.20 A
	ATOM	301	CA	ALA A 109	81.274	11.036	16.114	1.00	15.30 A
	ATOM	302	CB	ALA A 109	81.853	11.784	14.928	1.00	13.44 A
	ATOM	303	C	ALA A 109	79.759	11.205	16.178	1.00	17.20 A

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        ATOM    306  CA   ILE A 110    77.814  11.654  17.542  1.00 17.60 A
        ATOM    307  CB   ILE A 110    77.380  10.957  18.842  1.00 16.56 A
   5    ATOM    308  CG2  ILE A 110    75.906  11.236  19.119  1.00 14.97 A
        ATOM    309  CG1  ILE A 110    77.672   9.453  18.728  1.00 14.02 A
        ATOM    310  CD1  ILE A 110    77.197   8.632  19.907  1.00 11.93 A
        ATOM    311  C    ILE A 110    77.306  13.089  17.548  1.00 19.83 A
        ATOM    312  O    ILE A 110    77.690  13.892  18.396  1.00 20.84 A
  10    ATOM    313  N    LYS A 111    76.444  13.415  16.597  1.00 18.58 A
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        ATOM    315  CB   LYS A 111    75.455  15.115  15.131  1.00 21.39 A
        ATOM    316  CG   LYS A 111    75.016  16.558  14.975  1.00 24.84 A
        ATOM    317  CD   LYS A 111    75.005  16.971  13.516  1.00 27.43 A
  15    ATOM    318  CE   LYS A 111    74.426  18.359  13.343  1.00 28.44 A
        ATOM    319  NZ   LYS A 111    74.619  18.871  11.972  1.00 28.27 A
        ATOM    320  C    LYS A 111    74.724  14.819  17.507  1.00 20.66 A
        ATOM    321  O    LYS A 111    73.797  14.008  17.410  1.00 20.23 A
        ATOM    322  N    ILE A 112    74.772  15.765  18.441  1.00 20.09 A
  20    ATOM    323  CA   ILE A 112    73.704  15.914  19.426  1.00 23.02 A
        ATOM    324  CB   ILE A 112    74.261  15.882  20.863  1.00 24.20 A
        ATOM    325  CG2  ILE A 112    73.116  15.765  21.864  1.00 21.42 A
        ATOM    326  CG1  ILE A 112    75.206  14.692  21.023  1.00 24.14 A
        ATOM    327  CD1  ILE A 112    75.893  14.634  22.375  1.00 26.83 A
  25    ATOM    328  C    ILE A 112    72.962  17.225  19.221  1.00 22.53 A
        ATOM    329  O    ILE A 112    73.573  18.286  19.132  1.00 21.31 A
        ATOM    330  N    LEU A 113    71.641  17.138  19.150  1.00 24.04 A
        ATOM    331  CA   LEU A 113    70.800  18.313  18.940  1.00 25.81 A
        ATOM    332  CB   LEU A 113    70.135  18.264  17.555  1.00 24.66 A
  30    ATOM    333  CG   LEU A 113    70.988  18.095  16.295  1.00 26.73 A
        ATOM    334  CD1  LEU A 113    71.316  16.620  16.093  1.00 24.51 A
        ATOM    335  CD2  LEU A 113    70.234  18.637  15.083  1.00 26.16 A
        ATOM    336  C    LEU A 113    69.702  18.400  19.994  1.00 27.62 A
        ATOM    337  O    LEU A 113    69.053  17.398  20.314  1.00 29.70 A
  35    ATOM    338  N    GLU A 114    69.491  19.597  20.530  1.00 29.32 A
        ATOM    339  CA   GLU A 114    68.445  19.806  21.526  1.00 31.56 A
        ATOM    340  CB   GLU A 114    68.775  21.020  22.391  1.00 34.85 A
        ATOM    341  CG   GLU A 114    67.680  21.357  23.392  1.00 42.32 A
        ATOM    342  CD   GLU A 114    67.922  22.670  24.108  1.00 45.56 A
  40    ATOM    343  OE1  GLU A 114    68.086  23.700  23.417  1.00 48.01 A
        ATOM    344  OE2  GLU A 114    67.941  22.673  25.359  1.00 48.10 A
        ATOM    345  C    GLU A 114    67.107  20.036  20.816  1.00 31.02 A
        ATOM    346  O    GLU A 114    66.926  21.049  20.140  1.00 30.39 A
        ATOM    347  N    LYS A 115    66.176  19.099  20.967  1.00 30.58 A
  45    ATOM    348  CA   LYS A 115    64.872  19.218  20.321  1.00 31.63 A
        ATOM    349  CB   LYS A 115    63.964  18.049  20.734  1.00 28.91 A
        ATOM    350  CG   LYS A 115    64.287  16.742  20.003  1.00 28.07 A
        ATOM    351  CD   LYS A 115    63.356  15.580  20.368  1.00 23.95 A
        ATOM    352  CE   LYS A 115    63.713  14.960  21.707  1.00 23.89 A
  50    ATOM    353  NZ   LYS A 115    62.860  13.782  22.020  1.00 24.15 A
        ATOM    354  C    LYS A 115    64.165  20.551  20.591  1.00 33.78 A
        ATOM    355  O    LYS A 115    63.495  21.100  19.711  1.00 33.61 A
        ATOM    356  N    ARG A 116    64.325  21.076  21.801  1.00 35.55 A
        ATOM    357  CA   ARG A 116    63.682  22.332  22.176  1.00 38.66 A
  55    ATOM    358  CB   ARG A 116    63.932  22.627  23.663  1.00 42.20 A
        ATOM    359  CG   ARG A 116    62.949  23.603  24.302  1.00 47.35 A
        ATOM    360  CD   ARG A 116    63.670  24.685  25.109  1.00 52.44 A
        ATOM    361  NE   ARG A 116    64.526  24.141  26.166  1.00 56.30 A
        ATOM    362  CZ   ARG A 116    64.142  23.920  27.423  1.00 57.97 A
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        ATOM   363  NH1 ARG A 116      62.899  24.199  27.808  1.00 58.89 A
        ATOM   364  NH2 ARG A 116      65.006  23.420  28.300  1.00 56.55 A
        ATOM   365  C   ARG A 116      64.227  23.472  21.323  1.00 37.67 A
        ATOM   366  O   ARG A 116      63.474  24.246  20.735  1.00 36.66 A
   5    ATOM   367  N   HIS A 117      65.550  23.555  21.259  1.00 37.78 A
        ATOM   368  CA  HIS A 117      66.236  24.590  20.501  1.00 35.88 A
        ATOM   369  CB  HIS A 117      67.744  24.417  20.676  1.00 35.60 A
        ATOM   370  CG  HIS A 117      68.560  25.532  20.101  1.00 37.06 A
        ATOM   371  CD2 HIS A 117      69.508  25.535  19.134  1.00 38.11 A
   10   ATOM   372  ND1 HIS A 117      68.469  26.831  20.550  1.00 37.56 A
        ATOM   373  CE1 HIS A 117      69.325  27.587  19.886  1.00 38.35 A
        ATOM   374  NE2 HIS A 117      69.969  26.825  19.021  1.00 38.67 A
        ATOM   375  C   HIS A 117      65.859  24.529  19.024  1.00 34.83 A
        ATOM   376  O   HIS A 117      65.600  25.554  18.398  1.00 35.80 A
   15   ATOM   377  N   ILE A 118      65.827  23.321  18.474  1.00 33.01 A
        ATOM   378  CA  ILE A 118      65.483  23.122  17.071  1.00 32.12 A
        ATOM   379  CB  ILE A 118      65.575  21.629  16.692  1.00 33.37 A
        ATOM   380  CG2 ILE A 118      64.968  21.398  15.312  1.00 33.44 A
        ATOM   381  CG1 ILE A 118      67.032  21.168  16.732  1.00 33.47 A
   20   ATOM   382  CD1 ILE A 118      67.195  19.685  16.479  1.00 35.01 A
        ATOM   383  C   ILE A 118      64.066  23.603  16.760  1.00 31.17 A
        ATOM   384  O   ILE A 118      63.838  24.295  15.774  1.00 29.39 A
        ATOM   385  N   ILE A 119      63.117  23.209  17.600  1.00 31.17 A
        ATOM   386  CA  ILE A 119      61.725  23.590  17.420  1.00 31.73 A
   25   ATOM   387  CB  ILE A 119      60.841  22.896  18.473  1.00 31.45 A
        ATOM   388  CG2 ILE A 119      59.471  23.560  18.548  1.00 26.98 A
        ATOM   389  CG1 ILE A 119      60.735  21.409  18.131  1.00 27.55 A
        ATOM   390  CD1 ILE A 119      60.092  20.574  19.205  1.00 26.52 A
        ATOM   391  C   ILE A 119      61.549  25.100  17.519  1.00 33.53 A
   30   ATOM   392  O   ILE A 119      60.879  25.714  16.688  1.00 32.81 A
        ATOM   393  N   ALA A 120      62.165  25.691  18.535  1.00 34.30 A
        ATOM   394  CA  ALA A 120      62.078  27.125  18.749  1.00 34.63 A
        ATOM   395  CB  ALA A 120      62.811  27.506  20.029  1.00 35.03 A
        ATOM   396  C   ALA A 120      62.657  27.889  17.574  1.00 35.68 A
   35   ATOM   397  O   ALA A 120      62.141  28.938  17.195  1.00 36.85 A
        ATOM   398  N   GLU A 121      63.732  27.369  16.995  1.00 35.66 A
        ATOM   399  CA  GLU A 121      64.375  28.041  15.870  1.00 36.43 A
        ATOM   400  CB  GLU A 121      65.873  27.726  15.864  1.00 40.99 A
        ATOM   401  CG  GLU A 121      66.637  28.166  17.116  1.00 45.01 A
   40   ATOM   402  CD  GLU A 121      66.844  29.676  17.205  1.00 48.12 A
        ATOM   403  OE1 GLU A 121      67.670  30.104  18.043  1.00 49.33 A
        ATOM   404  OE2 GLU A 121      66.188  30.433  16.451  1.00 49.20 A
        ATOM   405  C   GLU A 121      63.780  27.670  14.512  1.00 34.98 A
        ATOM   406  O   GLU A 121      64.282  28.105  13.480  1.00 34.50 A
   45   ATOM   407  N   ASN A 122      62.716  26.869  14.517  1.00 33.68 A
        ATOM   408  CA  ASN A 122      62.060  26.434  13.286  1.00 32.99 A
        ATOM   409  CB  ASN A 122      61.492  27.639  12.530  1.00 35.58 A
        ATOM   410  CG  ASN A 122      60.424  28.373  13.315  1.00 38.88 A
        ATOM   411  OD1 ASN A 122      60.717  29.154  14.227  1.00 38.30 A
   50   ATOM   412  ND2 ASN A 122      59.170  28.116  12.970  1.00 38.77 A
        ATOM   413  C   ASN A 122      63.024  25.679  12.367  1.00 31.80 A
        ATOM   414  O   ASN A 122      63.095  25.957  11.172  1.00 30.78 A
        ATOM   415  N   LYS A 123      63.754  24.716  12.919  1.00 29.93 A
        ATOM   416  CA  LYS A 123      64.717  23.966  12.120  1.00 29.87 A
   55   ATOM   417  CB  LYS A 123      66.100  24.016  12.775  1.00 30.75 A
        ATOM   418  CG  LYS A 123      66.669  25.406  12.895  1.00 33.94 A
        ATOM   419  CD  LYS A 123      66.810  26.049  11.527  1.00 37.59 A
        ATOM   420  CE  LYS A 123      67.354  27.466  11.646  1.00 39.07 A
        ATOM   421  NZ  LYS A 123      67.460  28.121  10.310  1.00 41.71 A
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	ATOM	422	C	LYS A 123	64.337	22.514	11.880	1.00	27.38 A
	ATOM	423	O	LYS A 123	65.139	21.745	11.355	1.00	24.93 A
	ATOM	424	N	VAL A 124	63.124	22.132	12.260	1.00	24.22 A
	ATOM	425	CA	VAL A 124	62.716	20.756	12.062	1.00	22.73 A
5	ATOM	426	CB	VAL A 124	61.235	20.559	12.416	1.00	22.36 A
	ATOM	427	CG1	VAL A 124	60.794	19.146	12.064	1.00	22.84 A
	ATOM	428	CG2	VAL A 124	61.031	20.802	13.905	1.00	20.63 A
	ATOM	429	C	VAL A 124	62.981	20.320	10.623	1.00	23.50 A
	ATOM	430	O	VAL A 124	63.633	19.297	10.385	1.00	21.86 A
10	ATOM	431	N	PRO A 125	62.512	21.109	9.639	1.00	23.91 A
	ATOM	432	CD	PRO A 125	61.806	22.399	9.725	1.00	24.52 A
	ATOM	433	CA	PRO A 125	62.737	20.736	8.239	1.00	24.57 A
	ATOM	434	CB	PRO A 125	62.147	21.914	7.464	1.00	23.69 A
	ATOM	435	CG	PRO A 125	61.098	22.450	8.400	1.00	25.18 A
15	ATOM	436	C	PRO A 125	64.217	20.520	7.923	1.00	23.84 A
	ATOM	437	O	PRO A 125	64.568	19.618	7.172	1.00	22.92 A
	ATOM	438	N	TYR A 126	65.073	21.353	8.501	1.00	24.86 A
	ATOM	439	CA	TYR A 126	66.511	21.259	8.274	1.00	28.10 A
	ATOM	440	CB	TYR A 126	67.202	22.494	8.859	1.00	32.76 A
20	ATOM	441	CG	TYR A 126	66.802	23.766	8.146	1.00	39.46 A
	ATOM	442	CD1	TYR A 126	67.466	24.179	6.987	1.00	42.04 A
	ATOM	443	CE1	TYR A 126	67.063	25.322	6.292	1.00	43.67 A
	ATOM	444	CD2	TYR A 126	65.722	24.531	8.597	1.00	42.16 A
	ATOM	445	CE2	TYR A 126	65.309	25.673	7.909	1.00	43.70 A
25	ATOM	446	CZ	TYR A 126	65.983	26.062	6.758	1.00	44.51 A
	ATOM	447	OH	TYR A 126	65.570	27.183	6.068	1.00	45.30 A
	ATOM	448	C	TYR A 126	67.115	19.984	8.852	1.00	26.14 A
	ATOM	449	O	TYR A 126	67.768	19.225	8.141	1.00	26.15 A
	ATOM	450	N	VAL A 127	66.891	19.756	10.141	1.00	24.35 A
30	ATOM	451	CA	VAL A 127	67.396	18.568	10.819	1.00	24.93 A
	ATOM	452	CB	VAL A 127	66.956	18.568	12.296	1.00	24.24 A
	ATOM	453	CG1	VAL A 127	67.444	17.316	12.997	1.00	23.36 A
	ATOM	454	CG2	VAL A 127	67.492	19.809	12.979	1.00	21.11 A
	ATOM	455	C	VAL A 127	66.894	17.290	10.130	1.00	25.81 A
35	ATOM	456	O	VAL A 127	67.655	16.351	9.903	1.00	25.79 A
	ATOM	457	N	THR A 128	65.612	17.273	9.793	1.00	25.57 A
	ATOM	458	CA	THR A 128	64.996	16.136	9.114	1.00	26.36 A
	ATOM	459	CB	THR A 128	63.486	16.384	8.908	1.00	25.21 A
	ATOM	460	OG1	THR A 128	62.827	16.390	10.181	1.00	29.29 A
40	ATOM	461	CG2	THR A 128	62.883	15.317	8.043	1.00	25.73 A
	ATOM	462	C	THR A 128	65.640	15.898	7.748	1.00	26.97 A
	ATOM	463	O	THR A 128	65.929	14.760	7.366	1.00	25.68 A
	ATOM	464	N	ARG A 129	65.854	16.980	7.012	1.00	27.23 A
	ATOM	465	CA	ARG A 129	66.462	16.897	5.692	1.00	29.37 A
45	ATOM	466	CB	ARG A 129	66.484	18.282	5.032	1.00	32.35 A
	ATOM	467	CG	ARG A 129	66.936	18.280	3.583	1.00	36.81 A
	ATOM	468	CD	ARG A 129	67.208	19.693	3.064	1.00	40.45 A
	ATOM	469	NE	ARG A 129	66.178	20.651	3.459	1.00	44.54 A
	ATOM	470	CZ	ARG A 129	64.874	20.474	3.268	1.00	48.21 A
50	ATOM	471	NH1	ARG A 129	64.431	19.366	2.681	1.00	50.01 A
	ATOM	472	NH2	ARG A 129	64.008	21.403	3.668	1.00	47.79 A
	ATOM	473	C	ARG A 129	67.884	16.379	5.828	1.00	28.98 A
	ATOM	474	O	ARG A 129	68.316	15.532	5.054	1.00	28.26 A
	ATOM	475	N	GLU A 130	68.606	16.895	6.822	1.00	29.28 A
55	ATOM	476	CA	GLU A 130	69.988	16.490	7.057	1.00	30.58 A
	ATOM	477	CB	GLU A 130	70.556	17.203	8.287	1.00	34.18 A
	ATOM	478	CG	GLU A 130	72.078	17.220	8.344	1.00	38.81 A
	ATOM	479	CD	GLU A 130	72.633	17.650	9.702	1.00	41.66 A
	ATOM	480	OE1	GLU A 130	71.946	18.408	10.427	1.00	42.36 A

	ATOM	481	OE2	GLU	A	130	73.771	17.236	10.035	1.00 42.31	A
	ATOM	482	C	GLU	A	130	70.063	14.984	7.273	1.00 30.12	A
	ATOM	483	O	GLU	A	130	70.861	14.298	6.638	1.00 29.62	A
	ATOM	484	N	ARG	A	131	69.228	14.474	8.173	1.00 29.21	A
5	ATOM	485	CA	ARG	A	131	69.215	13.046	8.458	1.00 30.93	A
	ATOM	486	CB	ARG	A	131	68.241	12.724	9.601	1.00 32.88	A
	ATOM	487	CG	ARG	A	131	68.035	11.223	9.795	1.00 36.48	A
	ATOM	488	CD	ARG	A	131	67.069	10.885	10.922	1.00 41.14	A
	ATOM	489	NE	ARG	A	131	66.859	9.440	11.012	1.00 45.98	A
10	ATOM	490	CZ	ARG	A	131	66.167	8.833	11.974	1.00 48.77	A
	ATOM	491	NH1	ARG	A	131	65.605	9.546	12.946	1.00 48.39	A
	ATOM	492	NH2	ARG	A	131	66.045	7.509	11.968	1.00 48.16	A
	ATOM	493	C	ARG	A	131	68.836	12.226	7.224	1.00 29.97	A
	ATOM	494	O	ARG	A	131	69.398	11.157	6.986	1.00 28.24	A
15	ATOM	495	N	ASP	A	132	67.889	12.725	6.437	1.00 28.56	A
	ATOM	496	CA	ASP	A	132	67.460	11.996	5.251	1.00 29.18	A
	ATOM	497	CB	ASP	A	132	66.160	12.583	4.710	1.00 31.39	A
	ATOM	498	CG	ASP	A	132	65.005	12.409	5.682	1.00 38.76	A
	ATOM	499	OD1	ASP	A	132	64.892	11.319	6.283	1.00 40.09	A
20	ATOM	500	OD2	ASP	A	132	64.206	13.355	5.846	1.00 44.19	A
	ATOM	501	C	ASP	A	132	68.510	11.936	4.150	1.00 27.67	A
	ATOM	502	O	ASP	A	132	68.688	10.896	3.522	1.00 27.56	A
	ATOM	503	N	VAL	A	133	69.200	13.044	3.909	1.00 26.09	A
	ATOM	504	CA	VAL	A	133	70.232	13.063	2.886	1.00 25.09	A
25	ATOM	505	CB	VAL	A	133	70.859	14.459	2.742	1.00 25.26	A
	ATOM	506	CG1	VAL	A	133	72.157	14.369	1.961	1.00 24.32	A
	ATOM	507	CG2	VAL	A	133	69.890	15.390	2.029	1.00 24.76	A
	ATOM	508	C	VAL	A	133	71.320	12.076	3.266	1.00 25.33	A
	ATOM	509	O	VAL	A	133	71.742	11.270	2.445	1.00 23.59	A
30	ATOM	510	N	MET	A	134	71.764	12.138	4.520	1.00 26.01	A
	ATOM	511	CA	MET	A	134	72.812	11.243	4.995	1.00 27.63	A
	ATOM	512	CB	MET	A	134	73.210	11.576	6.436	1.00 25.11	A
	ATOM	513	CG	MET	A	134	74.056	12.834	6.539	1.00 27.52	A
	ATOM	514	SD	MET	A	134	74.875	13.035	8.132	1.00 28.28	A
35	ATOM	515	CE	MET	A	134	73.545	13.741	9.104	1.00 28.66	A
	ATOM	516	C	MET	A	134	72.431	9.779	4.901	1.00 28.59	A
	ATOM	517	O	MET	A	134	73.276	8.938	4.599	1.00 31.12	A
	ATOM	518	N	SER	A	135	71.168	9.467	5.165	1.00 29.14	A
	ATOM	519	CA	SER	A	135	70.709	8.082	5.090	1.00 31.93	A
40	ATOM	520	CB	SER	A	135	69.261	7.966	5.558	1.00 32.44	A
	ATOM	521	OG	SER	A	135	69.112	8.470	6.868	1.00 40.09	A
	ATOM	522	C	SER	A	135	70.786	7.557	3.668	1.00 31.36	A
	ATOM	523	O	SER	A	135	71.010	6.374	3.454	1.00 32.23	A
	ATOM	524	N	ARG	A	136	70.597	8.448	2.701	1.00 31.66	A
45	ATOM	525	CA	ARG	A	136	70.602	8.075	1.293	1.00 32.53	A
	ATOM	526	CB	ARG	A	136	69.798	9.095	0.491	1.00 33.51	A
	ATOM	527	CG	ARG	A	136	68.361	9.274	0.962	1.00 38.41	A
	ATOM	528	CD	ARG	A	136	67.676	10.352	0.137	1.00 40.27	A
	ATOM	529	NE	ARG	A	136	67.850	10.090	-1.288	1.00 42.75	A
50	ATOM	530	CZ	ARG	A	136	67.560	10.953	-2.253	1.00 44.58	A
	ATOM	531	NH1	ARG	A	136	67.071	12.151	-1.950	1.00 45.74	A
	ATOM	532	NH2	ARG	A	136	67.771	10.621	-3.522	1.00 43.43	A
	ATOM	533	C	ARG	A	136	71.985	7.946	0.670	1.00 32.09	A
	ATOM	534	O	ARG	A	136	72.113	7.513	-0.474	1.00 32.48	A
55	ATOM	535	N	LEU	A	137	73.019	8.329	1.406	1.00 30.72	A
	ATOM	536	CA	LEU	A	137	74.371	8.253	0.873	1.00 30.30	A
	ATOM	537	CB	LEU	A	137	75.167	9.508	1.262	1.00 29.84	A
	ATOM	538	CG	LEU	A	137	74.541	10.843	0.831	1.00 30.25	A
	ATOM	539	CD1	LEU	A	137	75.488	11.963	1.154	1.00 29.16	A

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     ATOM   540  CD2  LEU A 137    74.230  10.835  -0.656  1.00  29.68 A
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     ATOM   542  O    LEU A 137    75.033   6.684   2.553  1.00  31.12 A
     ATOM   543  N    ASP A 138    75.745   6.310   0.453  1.00  27.02 A
  5  ATOM   544  CA   ASP A 138    76.467   5.087   0.773  1.00  25.70 A
     ATOM   545  CB   ASP A 138    75.556   3.887   0.492  1.00  29.85 A
     ATOM   546  CG   ASP A 138    76.198   2.567   0.858  1.00  33.94 A
     ATOM   547  OD1  ASP A 138    76.815   2.486   1.949  1.00  34.64 A
     ATOM   548  OD2  ASP A 138    76.074   1.610   0.058  1.00  35.28 A
 10  ATOM   549  C    ASP A 138    77.699   5.062  -0.127  1.00  24.23 A
     ATOM   550  O    ASP A 138    77.765   4.300  -1.091  1.00  24.33 A
     ATOM   551  N    HIS A 139    78.672   5.904   0.209  1.00  20.89 A
     ATOM   552  CA   HIS A 139    79.888   6.069  -0.577  1.00  19.30 A
     ATOM   553  CB   HIS A 139    79.681   7.243  -1.553  1.00  17.75 A
 15  ATOM   554  CG   HIS A 139    80.774   7.410  -2.564  1.00  17.45 A
     ATOM   555  CD2  HIS A 139    80.794   7.179  -3.897  1.00  16.63 A
     ATOM   556  ND1  HIS A 139    82.034   7.862  -2.235  1.00  20.01 A
     ATOM   557  CE1  HIS A 139    82.784   7.901  -3.322  1.00  16.89 A
     ATOM   558  NE2  HIS A 139    82.054   7.491  -4.344  1.00  16.94 A
 20  ATOM   559  C    HIS A 139    81.066   6.347   0.352  1.00  19.25 A
     ATOM   560  O    HIS A 139    80.914   6.990   1.388  1.00  21.17 A
     ATOM   561  N    PRO A 140    82.265   5.881  -0.021  1.00  17.84 A
     ATOM   562  CD   PRO A 140    82.575   5.120  -1.243  1.00  16.07 A
     ATOM   563  CA   PRO A 140    83.467   6.079   0.789  1.00  18.04 A
 25  ATOM   564  CB   PRO A 140    84.518   5.240   0.055  1.00  18.70 A
     ATOM   565  CG   PRO A 140    84.061   5.315  -1.365  1.00  19.17 A
     ATOM   566  C    PRO A 140    83.919   7.523   1.014  1.00  19.75 A
     ATOM   567  O    PRO A 140    84.686   7.793   1.930  1.00  21.01 A
     ATOM   568  N    PHE A 141    83.460   8.457   0.192  1.00  20.21 A
 30  ATOM   569  CA   PHE A 141    83.869   9.837   0.389  1.00  20.05 A
     ATOM   570  CB   PHE A 141    84.149  10.496  -0.964  1.00  20.20 A
     ATOM   571  CG   PHE A 141    85.333   9.909  -1.686  1.00  20.95 A
     ATOM   572  CD1  PHE A 141    86.362   9.297  -0.975  1.00  21.45 A
     ATOM   573  CD2  PHE A 141    85.430   9.983  -3.071  1.00  20.27 A
 35  ATOM   574  CE1  PHE A 141    87.476   8.765  -1.635  1.00  22.05 A
     ATOM   575  CE2  PHE A 141    86.541   9.456  -3.743  1.00  20.58 A
     ATOM   576  CZ   PHE A 141    87.562   8.848  -3.027  1.00  20.58 A
     ATOM   577  C    PHE A 141    82.881  10.679   1.210  1.00  18.71 A
     ATOM   578  O    PHE A 141    83.015  11.897   1.300  1.00  19.78 A
 40  ATOM   579  N    PHE A 142    81.903  10.027   1.823  1.00  18.61 A
     ATOM   580  CA   PHE A 142    80.915  10.738   2.639  1.00  19.11 A
     ATOM   581  CB   PHE A 142    79.543  10.709   1.966  1.00  17.36 A
     ATOM   582  CG   PHE A 142    79.458  11.565   0.750  1.00  19.19 A
     ATOM   583  CD1  PHE A 142    79.258  12.936   0.863  1.00  19.44 A
 45  ATOM   584  CD2  PHE A 142    79.649  11.016  -0.511  1.00  18.39 A
     ATOM   585  CE1  PHE A 142    79.254  13.759  -0.268  1.00  20.66 A
     ATOM   586  CE2  PHE A 142    79.648  11.824  -1.644  1.00  20.80 A
     ATOM   587  CZ   PHE A 142    79.451  13.203  -1.523  1.00  18.95 A
     ATOM   588  C    PHE A 142    80.787  10.132   4.023  1.00  18.98 A
 50  ATOM   589  O    PHE A 142    80.735   8.918   4.168  1.00  18.39 A
     ATOM   590  N    VAL A 143    80.736  10.983   5.041  1.00  20.79 A
     ATOM   591  CA   VAL A 143    80.578  10.499   6.401  1.00  20.94 A
     ATOM   592  CB   VAL A 143    80.456  11.670   7.404  1.00  21.95 A
     ATOM   593  CG1  VAL A 143    80.081  11.145   8.783  1.00  21.30 A
 55  ATOM   594  CG2  VAL A 143    81.781  12.433   7.473  1.00  19.28 A
     ATOM   595  C    VAL A 143    79.299   9.683   6.396  1.00  21.12 A
     ATOM   596  O    VAL A 143    78.280  10.124   5.895  1.00  23.63 A
     ATOM   597  N    LYS A 144    79.367   8.481   6.940  1.00  23.64 A
     ATOM   598  CA   LYS A 144    78.221   7.582   6.990  1.00  24.47 A
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ATOM	599	CB	LYS	A	144	78.714	6.131	6.869	1.00 25.53	A
ATOM	600	CG	LYS	A	144	77.635	5.061	6.997	1.00 32.25	A
ATOM	601	CD	LYS	A	144	78.240	3.660	6.870	1.00 36.07	A
ATOM	602	CE	LYS	A	144	77.187	2.563	7.033	1.00 38.50	A
ATOM	603	NZ	LYS	A	144	77.791	1.186	7.051	1.00 41.46	A
ATOM	604	C	LYS	A	144	77.418	7.744	8.275	1.00 22.60	A
ATOM	605	O	LYS	A	144	77.973	8.019	9.335	1.00 23.18	A
ATOM	606	N	LEU	A	145	76.104	7.583	8.170	1.00 21.59	A
ATOM	607	CA	LEU	A	145	75.224	7.661	9.327	1.00 21.42	A
ATOM	608	CB	LEU		145	73.918	8.372	8.967	0.50 21.21	AC1
ATOM	609	CG	LEU		145	72.843	8.332	10.060	0.50 21.32	AC1
ATOM	610	CD1	LEU		145	73.356	9.036	11.309	0.50 19.59	AC1
ATOM	611	CD2	LEU		145	71.569	8.994	9.559	0.50 21.45	AC1
ATOM	612	C	LEU	A	145	74.919	6.215	9.733	1.00 21.84	A
ATOM	613	O	LEU	A	145	74.283	5.471	8.977	1.00 19.24	A
ATOM	614	N	TYR	A	146	75.363	5.816	10.921	1.00 19.77	A
ATOM	615	CA	TYR	A	146	75.143	4.444	11.368	1.00 19.92	A
ATOM	616	CB	TYR	A	146	76.326	3.944	12.188	1.00 18.05	A
ATOM	617	CG	TYR	A	146	77.601	3.803	11.415	1.00 17.64	A
ATOM	618	CD1	TYR	A	146	78.435	4.909	11.203	1.00 18.26	A
ATOM	619	CE1	TYR	A	146	79.638	4.782	10.516	1.00 17.33	A
ATOM	620	CD2	TYR	A	146	78.000	2.560	10.910	1.00 15.57	A
ATOM	621	CE2	TYR	A	146	79.208	2.419	10.215	1.00 17.53	A
ATOM	622	CZ	TYR	A	146	80.022	3.535	10.026	1.00 18.78	A
ATOM	623	OH	TYR	A	146	81.224	3.413	9.369	1.00 19.47	A
ATOM	624	C	TYR	A	146	73.884	4.194	12.170	1.00 20.60	A
ATOM	625	O	TYR	A	146	73.331	3.100	12.108	1.00 21.73	A
ATOM	626	N	PHE	A	147	73.431	5.192	12.921	1.00 20.92	A
ATOM	627	CA	PHE	A	147	72.239	5.025	13.745	1.00 22.59	A
ATOM	628	CB	PHE	A	147	72.538	4.063	14.917	1.00 22.24	A
ATOM	629	CG	PHE	A	147	73.708	4.488	15.770	1.00 21.88	A
ATOM	630	CD1	PHE	A	147	73.607	5.578	16.625	1.00 21.93	A
ATOM	631	CD2	PHE	A	147	74.936	3.843	15.657	1.00 21.57	A
ATOM	632	CE1	PHE	A	147	74.715	6.025	17.352	1.00 25.21	A
ATOM	633	CE2	PHE	A	147	76.051	4.279	16.377	1.00 21.30	A
ATOM	634	CZ	PHE	A	147	75.942	5.371	17.224	1.00 24.23	A
ATOM	635	C	PHE	A	147	71.737	6.343	14.308	1.00 23.77	A
ATOM	636	O	PHE	A	147	72.448	7.352	14.307	1.00 22.91	A
ATOM	637	N	THR	A	148	70.501	6.324	14.791	1.00 25.15	A
ATOM	638	CA	THR	A	148	69.908	7.503	15.403	1.00 25.99	A
ATOM	639	CB	THR	A	148	68.953	8.251	14.466	1.00 27.00	A
ATOM	640	OG1	THR	A	148	67.850	7.400	14.148	1.00 27.79	A
ATOM	641	CG2	THR	A	148	69.660	8.661	13.193	1.00 26.35	A
ATOM	642	C	THR	A	148	69.080	7.055	16.580	1.00 26.23	A
ATOM	643	O	THR	A	148	68.591	5.930	16.620	1.00 26.46	A
ATOM	644	N	PHE	A	149	68.942	7.943	17.550	1.00 25.72	A
ATOM	645	CA	PHE	A	149	68.133	7.662	18.706	1.00 25.10	A
ATOM	646	CB	PHE	A	149	68.789	6.593	19.602	1.00 23.02	A
ATOM	647	CG	PHE	A	149	70.088	7.011	20.231	1.00 22.26	A
ATOM	648	CD1	PHE	A	149	70.105	7.794	21.373	1.00 20.98	A
ATOM	649	CD2	PHE	A	149	71.302	6.587	19.694	1.00 21.51	A
ATOM	650	CE1	PHE	A	149	71.312	8.151	21.976	1.00 22.36	A
ATOM	651	CE2	PHE	A	149	72.511	6.939	20.288	1.00 21.06	A
ATOM	652	CZ	PHE	A	149	72.519	7.722	21.430	1.00 19.46	A
ATOM	653	C	PHE	A	149	67.931	8.974	19.427	1.00 27.05	A
ATOM	654	O	PHE	A	149	68.565	9.974	19.096	1.00 27.03	A
ATOM	655	N	GLN	A	150	67.024	8.984	20.391	1.00 29.18	A
ATOM	656	CA	GLN	A	150	66.757	10.198	21.133	1.00 31.94	A
ATOM	657	CB	GLN	A	150	65.697	11.035	20.409	1.00 32.80	A

	ATOM	658	CG	GLN	A	150	64.385	10.302	20.153	1.00	34.22	A
	ATOM	659	CD	GLN	A	150	63.340	11.169	19.459	1.00	36.88	A
	ATOM	660	OE1	GLN	A	150	62.630	11.959	20.098	1.00	37.60	A
	ATOM	661	NE2	GLN	A	150	63.248	11.033	18.141	1.00	35.03	A
5	ATOM	662	C	GLN	A	150	66.269	9.890	22.531	1.00	32.97	A
	ATOM	663	O	GLN	A	150	65.857	8.768	22.825	1.00	33.19	A
	ATOM	664	N	ASP	A	151	66.355	10.890	23.398	1.00	34.27	A
	ATOM	665	CA	ASP	A	151	65.847	10.771	24.753	1.00	35.77	A
	ATOM	666	CB	ASP	A	151	66.957	10.933	25.796	1.00	35.66	A
10	ATOM	667	CG	ASP	A	151	67.760	12.194	25.604	1.00	38.11	A
	ATOM	668	OD1	ASP	A	151	67.172	13.216	25.195	1.00	39.31	A
	ATOM	669	OD2	ASP	A	151	68.982	12.167	25.879	1.00	41.03	A
	ATOM	670	C	ASP	A	151	64.823	11.904	24.838	1.00	36.64	A
	ATOM	671	O	ASP	A	151	64.401	12.428	23.803	1.00	36.42	A
15	ATOM	672	N	ASP	A	152	64.427	12.301	26.041	1.00	38.18	A
	ATOM	673	CA	ASP	A	152	63.427	13.357	26.171	1.00	39.81	A
	ATOM	674	CB	ASP	A	152	63.022	13.534	27.637	1.00	44.46	A
	ATOM	675	CG	ASP	A	152	62.291	12.324	28.186	1.00	50.02	A
	ATOM	676	OD1	ASP	A	152	61.313	11.876	27.541	1.00	52.36	A
20	ATOM	677	OD2	ASP	A	152	62.689	11.822	29.263	1.00	52.75	A
	ATOM	678	C	ASP	A	152	63.822	14.709	25.594	1.00	37.45	A
	ATOM	679	O	ASP	A	152	62.988	15.408	25.026	1.00	36.81	A
	ATOM	680	N	GLU	A	153	65.091	15.077	25.708	1.00	35.46	A
	ATOM	681	CA	GLU	A	153	65.501	16.378	25.211	1.00	33.50	A
25	ATOM	682	CB	GLU	A	153	66.132	17.174	26.354	1.00	36.16	A
	ATOM	683	CG	GLU	A	153	65.389	17.065	27.687	1.00	37.72	A
	ATOM	684	CD	GLU	A	153	65.657	15.753	28.402	0.00	37.23	A
	ATOM	685	OE1	GLU	A	153	65.063	15.530	29.479	0.00	37.39	A
	ATOM	686	OE2	GLU	A	153	66.464	14.947	27.893	0.00	37.39	A
30	ATOM	687	C	GLU	A	153	66.432	16.425	23.995	1.00	31.79	A
	ATOM	688	O	GLU	A	153	66.498	17.451	23.323	1.00	30.80	A
	ATOM	689	N	LYS	A	154	67.131	15.334	23.691	1.00	30.35	A
	ATOM	690	CA	LYS	A	154	68.069	15.357	22.569	1.00	28.14	A
	ATOM	691	CB	LYS	A	154	69.505	15.358	23.099	1.00	27.32	A
35	ATOM	692	CG	LYS	A	154	69.853	16.503	24.026	1.00	29.91	A
	ATOM	693	CD	LYS	A	154	71.234	16.302	24.648	1.00	30.14	A
	ATOM	694	CE	LYS	A	154	71.606	17.450	25.592	1.00	32.52	A
	ATOM	695	NZ	LYS	A	154	72.780	17.121	26.469	1.00	31.90	A
	ATOM	696	C	LYS	A	154	67.967	14.261	21.515	1.00	26.36	A
40	ATOM	697	O	LYS	A	154	67.517	13.145	21.781	1.00	23.71	A
	ATOM	698	N	LEU	A	155	68.413	14.610	20.311	1.00	24.76	A
	ATOM	699	CA	LEU	A	155	68.462	13.691	19.178	1.00	23.29	A
	ATOM	700	CB	LEU	A	155	68.012	14.382	17.891	1.00	22.72	A
	ATOM	701	CG	LEU	A	155	66.588	14.916	17.739	1.00	24.25	A
45	ATOM	702	CD1	LEU	A	155	66.441	15.489	16.329	1.00	24.62	A
	ATOM	703	CD2	LEU	A	155	65.576	13.798	17.965	1.00	23.10	A
	ATOM	704	C	LEU	A	155	69.939	13.325	19.022	1.00	21.93	A
	ATOM	705	O	LEU	A	155	70.812	14.167	19.233	1.00	20.17	A
	ATOM	706	N	TYR	A	156	70.227	12.088	18.647	1.00	19.72	A
50	ATOM	707	CA	TYR	A	156	71.617	11.693	18.462	1.00	20.11	A
	ATOM	708	CB	TYR	A	156	72.061	10.703	19.540	1.00	20.01	A
	ATOM	709	CG	TYR	A	156	71.885	11.172	20.963	1.00	20.98	A
	ATOM	710	CD1	TYR	A	156	70.619	11.313	21.520	1.00	22.18	A
	ATOM	711	CE1	TYR	A	156	70.457	11.724	22.850	1.00	25.21	A
55	ATOM	712	CD2	TYR	A	156	72.991	11.449	21.762	1.00	21.38	A
	ATOM	713	CE2	TYR	A	156	72.843	11.859	23.086	1.00	25.12	A
	ATOM	714	CZ	TYR	A	156	71.576	11.995	23.622	1.00	24.83	A
	ATOM	715	OH	TYR	A	156	71.431	12.410	24.923	1.00	25.97	A
	ATOM	716	C	TYR	A	156	71.792	11.033	17.108	1.00	20.02	A

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     ATOM   717  O    TYR A 156      70.959  10.231  16.704  1.00 22.19 A
     ATOM   718  N    PHE A 157      72.860  11.385  16.399  1.00 19.17 A
     ATOM   719  CA   PHE A 157      73.140  10.769  15.114  1.00 18.65 A
     ATOM   720  CB   PHE A 157      73.071  11.780  13.969  1.00 21.02 A
  5  ATOM   721  CG   PHE A 157      71.719  12.411  13.791  1.00 25.64 A
     ATOM   722  CD1  PHE A 157      70.558  11.724  14.135  1.00 27.84 A
     ATOM   723  CD2  PHE A 157      71.603  13.695  13.267  1.00 27.19 A
     ATOM   724  CE1  PHE A 157      69.301  12.310  13.964  1.00 28.87 A
     ATOM   725  CE2  PHE A 157      70.350  14.288  13.091  1.00 28.27 A
 10  ATOM   726  CZ   PHE A 157      69.200  13.595  13.442  1.00 26.64 A
     ATOM   727  C    PHE A 157      74.543  10.212  15.204  1.00 19.60 A
     ATOM   728  O    PHE A 157      75.489  10.952  15.467  1.00 19.26 A
     ATOM   729  N    GLY A 158      74.668   8.902  15.010  1.00 19.26 A
     ATOM   730  CA   GLY A 158      75.972   8.265  15.063  1.00 18.63 A
 15  ATOM   731  C    GLY A 158      76.615   8.309  13.693  1.00 16.84 A
     ATOM   732  O    GLY A 158      76.160   7.646  12.772  1.00 15.29 A
     ATOM   733  N    LEU A 159      77.677   9.096  13.567  1.00 18.10 A
     ATOM   734  CA   LEU A 159      78.386   9.263  12.302  1.00 17.32 A
     ATOM   735  CB   LEU A 159      78.502  10.753  11.984  1.00 16.80 A
 20  ATOM   736  CG   LEU A 159      77.161  11.485  12.068  1.00 18.21 A
     ATOM   737  CD1  LEU A 159      77.376  12.992  12.058  1.00 15.34 A
     ATOM   738  CD2  LEU A 159      76.280  11.036  10.906  1.00 14.27 A
     ATOM   739  C    LEU A 159      79.780   8.665  12.375  1.00 18.27 A
     ATOM   740  O    LEU A 159      80.338   8.518  13.465  1.00 18.92 A
 25  ATOM   741  N    SER A 160      80.343   8.320  11.220  1.00 16.88 A
     ATOM   742  CA   SER A 160      81.691   7.770  11.194  1.00 19.02 A
     ATOM   743  CB   SER A 160      82.086   7.362   9.771  1.00 20.02 A
     ATOM   744  OG   SER A 160      81.866   8.421   8.864  1.00 25.88 A
     ATOM   745  C    SER A 160      82.655   8.831  11.724  1.00 18.34 A
 30  ATOM   746  O    SER A 160      82.413  10.032  11.588  1.00 17.84 A
     ATOM   747  N    TYR A 161      83.743   8.384  12.335  1.00 17.11 A
     ATOM   748  CA   TYR A 161      84.723   9.300  12.901  1.00 19.21 A
     ATOM   749  CB   TYR A 161      85.146   8.802  14.293  1.00 19.37 A
     ATOM   750  CG   TYR A 161      86.269   9.582  14.944  1.00 22.52 A
 35  ATOM   751  CD1  TYR A 161      86.276  10.978  14.929  1.00 21.17 A
     ATOM   752  CE1  TYR A 161      87.283  11.703  15.559  1.00 18.10 A
     ATOM   753  CD2  TYR A 161      87.313   8.923  15.612  1.00 21.92 A
     ATOM   754  CE2  TYR A 161      88.330   9.647  16.252  1.00 20.10 A
     ATOM   755  CZ   TYR A 161      88.301  11.039  16.220  1.00 20.24 A
 40  ATOM   756  OH   TYR A 161      89.266  11.776  16.873  1.00 20.31 A
     ATOM   757  C    TYR A 161      85.934   9.459  11.997  1.00 20.13 A
     ATOM   758  O    TYR A 161      86.621   8.491  11.675  1.00 21.97 A
     ATOM   759  N    ALA A 162      86.182  10.686  11.571  1.00 19.13 A
     ATOM   760  CA   ALA A 162      87.320  10.969  10.717  1.00 20.60 A
 45  ATOM   761  CB   ALA A 162      86.907  11.919   9.592  1.00 21.18 A
     ATOM   762  C    ALA A 162      88.375  11.617  11.604  1.00 21.36 A
     ATOM   763  O    ALA A 162      88.391  12.835  11.752  1.00 20.74 A
     ATOM   764  N    LYS A 163      89.237  10.787  12.195  1.00 21.80 A
     ATOM   765  CA   LYS A 163      90.294  11.232  13.102  1.00 25.38 A
 50  ATOM   766  CB   LYS A 163      91.315  10.109  13.332  1.00 30.51 A
     ATOM   767  CG   LYS A 163      90.874   8.987  14.251  1.00 38.24 A
     ATOM   768  CD   LYS A 163      92.000   7.970  14.456  1.00 43.14 A
     ATOM   769  CE   LYS A 163      91.556   6.794  15.342  1.00 46.63 A
     ATOM   770  NZ   LYS A 163      91.252   7.200  16.752  1.00 47.21 A
 55  ATOM   771  C    LYS A 163      91.082  12.482  12.719  1.00 25.07 A
     ATOM   772  O    LYS A 163      91.276  13.373  13.541  1.00 25.50 A
     ATOM   773  N    ASN A 164      91.540  12.549  11.477  1.00 25.06 A
     ATOM   774  CA   ASN A 164      92.363  13.668  11.054  1.00 26.04 A
     ATOM   775  CB   ASN A 164      93.115  13.278   9.787  1.00 26.02 A
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	ATOM	776	CG	ASN A 164	94.062	12.120	10.033	1.00	29.07	A
	ATOM	777	OD1	ASN A 164	94.854	12.155	10.969	1.00	30.18	A
	ATOM	778	ND2	ASN A 164	93.979	11.089	9.207	1.00	32.14	A
	ATOM	779	C	ASN A 164	91.725	15.040	10.915	1.00	25.35	A
5	ATOM	780	O	ASN A 164	92.416	16.021	10.640	1.00	26.51	A
	ATOM	781	N	GLY A 165	90.419	15.122	11.116	1.00	23.92	A
	ATOM	782	CA	GLY A 165	89.761	16.413	11.043	1.00	24.35	A
	ATOM	783	C	GLY A 165	89.663	17.123	9.704	1.00	23.94	A
	ATOM	784	O	GLY A 165	89.632	16.501	8.643	1.00	25.49	A
10	ATOM	785	N	GLU A 166	89.623	18.449	9.773	1.00	23.07	A
	ATOM	786	CA	GLU A 166	89.467	19.301	8.602	1.00	23.26	A
	ATOM	787	CB	GLU A 166	89.164	20.739	9.036	1.00	23.73	A
	ATOM	788	CG	GLU A 166	88.271	20.875	10.257	1.00	27.31	A
	ATOM	789	CD	GLU A 166	87.812	22.302	10.474	1.00	29.74	A
15	ATOM	790	OE1	GLU A 166	88.586	23.221	10.130	1.00	30.87	A
	ATOM	791	OE2	GLU A 166	86.686	22.510	10.989	1.00	29.80	A
	ATOM	792	C	GLU A 166	90.612	19.354	7.602	1.00	24.47	A
	ATOM	793	O	GLU A 166	91.786	19.473	7.968	1.00	24.85	A
	ATOM	794	N	LEU A 167	90.251	19.287	6.328	1.00	23.47	A
20	ATOM	795	CA	LEU A 167	91.228	19.393	5.262	1.00	24.00	A
	ATOM	796	CB	LEU A 167	90.528	19.369	3.901	1.00	22.48	A
	ATOM	797	CG	LEU A 167	91.373	19.759	2.679	1.00	23.87	A
	ATOM	798	CD1	LEU A 167	92.583	18.846	2.563	1.00	20.03	A
	ATOM	799	CD2	LEU A 167	90.516	19.680	1.418	1.00	22.08	A
25	ATOM	800	C	LEU A 167	91.943	20.732	5.448	1.00	24.82	A
	ATOM	801	O	LEU A 167	93.138	20.858	5.165	1.00	24.59	A
	ATOM	802	N	LEU A 168	91.206	21.731	5.927	1.00	24.43	A
	ATOM	803	CA	LEU A 168	91.784	23.055	6.150	1.00	28.25	A
	ATOM	804	CB	LEU A 168	90.746	24.009	6.747	1.00	27.44	A
30	ATOM	805	CG	LEU A 168	91.310	25.395	7.090	1.00	28.57	A
	ATOM	806	CD1	LEU A 168	91.624	26.150	5.809	1.00	28.11	A
	ATOM	807	CD2	LEU A 168	90.312	26.174	7.921	1.00	29.97	A
	ATOM	808	C	LEU A 168	92.999	23.014	7.074	1.00	28.43	A
	ATOM	809	O	LEU A 168	93.952	23.760	6.882	1.00	30.21	A
35	ATOM	810	N	LYS A 169	92.958	22.152	8.081	1.00	30.23	A
	ATOM	811	CA	LYS A 169	94.072	22.050	9.008	1.00	33.52	A
	ATOM	812	CB	LYS A 169	93.821	20.955	10.046	1.00	35.45	A
	ATOM	813	CG	LYS A 169	94.972	20.784	11.033	1.00	40.43	A
	ATOM	814	CD	LYS A 169	94.808	19.562	11.943	1.00	41.43	A
40	ATOM	815	CE	LYS A 169	95.047	18.261	11.186	1.00	42.67	A
	ATOM	816	NZ	LYS A 169	95.057	17.068	12.096	1.00	43.84	A
	ATOM	817	C	LYS A 169	95.329	21.718	8.228	1.00	34.58	A
	ATOM	818	O	LYS A 169	96.377	22.333	8.421	1.00	35.58	A
	ATOM	819	N	TYR A 170	95.219	20.739	7.339	1.00	34.55	A
45	ATOM	820	CA	TYR A 170	96.357	20.328	6.539	1.00	35.07	A
	ATOM	821	CB	TYR A 170	96.018	19.047	5.790	1.00	35.72	A
	ATOM	822	CG	TYR A 170	96.050	17.869	6.716	1.00	37.48	A
	ATOM	823	CD1	TYR A 170	97.256	17.250	7.040	1.00	39.42	A
	ATOM	824	CE1	TYR A 170	97.313	16.230	7.987	1.00	40.93	A
50	ATOM	825	CD2	TYR A 170	94.895	17.435	7.355	1.00	38.83	A
	ATOM	826	CE2	TYR A 170	94.937	16.417	8.303	1.00	41.76	A
	ATOM	827	CZ	TYR A 170	96.149	15.821	8.615	1.00	42.18	A
	ATOM	828	OH	TYR A 170	96.196	14.827	9.563	1.00	45.30	A
	ATOM	829	C	TYR A 170	96.823	21.404	5.585	1.00	35.67	A
55	ATOM	830	O	TYR A 170	97.999	21.465	5.248	1.00	35.28	A
	ATOM	831	N	ILE A 171	95.904	22.260	5.154	1.00	36.78	A
	ATOM	832	CA	ILE A 171	96.272	23.333	4.252	1.00	38.95	A
	ATOM	833	CB	ILE A 171	95.032	24.048	3.682	1.00	39.15	A
	ATOM	834	CG2	ILE A 171	95.452	25.329	2.960	1.00	38.11	A

	ATOM	835	CG1	ILE	A	171	94.296	23.113	2.718	1.00	37.57	A
	ATOM	836	CD1	ILE	A	171	93.041	23.712	2.116	1.00	37.48	A
	ATOM	837	C	ILE	A	171	97.146	24.338	4.990	1.00	41.33	A
	ATOM	838	O	ILE	A	171	98.173	24.765	4.466	1.00	42.36	A
5	ATOM	839	N	ARG	A	172	96.748	24.713	6.203	1.00	42.79	A
	ATOM	840	CA	ARG	A	172	97.541	25.662	6.981	1.00	44.62	A
	ATOM	841	CB	ARG	A	172	96.809	26.103	8.253	1.00	46.82	A
	ATOM	842	CG	ARG	A	172	95.492	26.828	8.033	1.00	50.73	A
	ATOM	843	CD	ARG	A	172	95.124	27.643	9.271	1.00	53.80	A
10	ATOM	844	NE	ARG	A	172	93.747	28.136	9.247	1.00	56.88	A
	ATOM	845	CZ	ARG	A	172	93.183	28.766	8.218	1.00	57.65	A
	ATOM	846	NH1	ARG	A	172	93.873	28.989	7.104	1.00	57.71	A
	ATOM	847	NH2	ARG	A	172	91.923	29.176	8.305	1.00	56.95	A
	ATOM	848	C	ARG	A	172	98.856	25.015	7.383	1.00	44.41	A
15	ATOM	849	O	ARG	A	172	99.927	25.587	7.186	1.00	45.16	A
	ATOM	850	N	LYS	A	173	98.759	23.817	7.949	1.00	44.01	A
	ATOM	851	CA	LYS	A	173	99.923	23.069	8.398	1.00	42.99	A
	ATOM	852	CB	LYS	A	173	99.538	21.616	8.667	1.00	44.20	A
	ATOM	853	CG	LYS	A	173	100.721	20.689	8.908	1.00	45.81	A
20	ATOM	854	CD	LYS	A	173	100.272	19.238	8.987	0.00	45.28	A
	ATOM	855	CE	LYS	A	173	101.457	18.296	9.120	0.00	45.43	A
	ATOM	856	NZ	LYS	A	173	101.028	16.870	9.146	0.00	45.35	A
	ATOM	857	C	LYS	A	173	101.081	23.108	7.412	1.00	43.20	A
	ATOM	858	O	LYS	A	173	102.220	23.366	7.805	1.00	43.49	A
25	ATOM	859	N	ILE	A	174	100.802	22.867	6.133	1.00	41.97	A
	ATOM	860	CA	ILE	A	174	101.871	22.859	5.136	1.00	40.74	A
	ATOM	861	CB	ILE	A	174	101.874	21.536	4.336	1.00	40.61	A
	ATOM	862	CG2	ILE	A	174	101.897	20.352	5.297	1.00	41.39	A
	ATOM	863	CG1	ILE	A	174	100.638	21.448	3.442	1.00	40.75	A
30	ATOM	864	CD1	ILE	A	174	100.680	20.276	2.487	1.00	40.45	A
	ATOM	865	C	ILE	A	174	101.882	24.024	4.149	1.00	39.97	A
	ATOM	866	O	ILE	A	174	102.675	24.033	3.209	1.00	38.15	A
	ATOM	867	N	GLY	A	175	101.007	25.004	4.359	1.00	40.09	A
	ATOM	868	CA	GLY	A	175	100.969	26.156	3.473	1.00	39.94	A
35	ATOM	869	C	GLY	A	175	100.151	25.960	2.211	1.00	39.87	A
	ATOM	870	O	GLY	A	175	99.152	26.646	2.005	1.00	40.53	A
	ATOM	871	N	SER	A	176	100.586	25.043	1.354	1.00	39.28	A
	ATOM	872	CA	SER	A	176	99.871	24.747	0.122	1.00	38.77	A
	ATOM	873	CB	SER	A	176	100.169	25.804	-0.950	1.00	39.84	A
40	ATOM	874	OG	SER	A	176	101.537	25.823	-1.319	1.00	43.67	A
	ATOM	875	C	SER	A	176	100.265	23.353	-0.358	1.00	38.39	A
	ATOM	876	O	SER	A	176	101.245	22.776	0.118	1.00	39.37	A
	ATOM	877	N	PHE	A	177	99.491	22.811	-1.289	1.00	35.85	A
	ATOM	878	CA	PHE	A	177	99.732	21.472	-1.810	1.00	32.81	A
45	ATOM	879	CB	PHE	A	177	98.401	20.770	-2.095	1.00	32.30	A
	ATOM	880	CG	PHE	A	177	97.645	20.344	-0.867	1.00	31.20	A
	ATOM	881	CD1	PHE	A	177	97.806	21.005	0.348	1.00	29.02	A
	ATOM	882	CD2	PHE	A	177	96.735	19.293	-0.939	1.00	30.11	A
	ATOM	883	CE1	PHE	A	177	97.076	20.628	1.468	1.00	27.07	A
50	ATOM	884	CE2	PHE	A	177	95.998	18.910	0.181	1.00	29.70	A
	ATOM	885	CZ	PHE	A	177	96.170	19.580	1.385	1.00	27.57	A
	ATOM	886	C	PHE	A	177	100.535	21.485	-3.093	1.00	33.02	A
	ATOM	887	O	PHE	A	177	100.386	22.381	-3.927	1.00	30.75	A
	ATOM	888	N	ASP	A	178	101.379	20.471	-3.252	1.00	33.87	A
55	ATOM	889	CA	ASP	A	178	102.184	20.329	-4.454	1.00	33.45	A
	ATOM	890	CB	ASP	A	178	103.269	19.275	-4.244	1.00	35.60	A
	ATOM	891	CG	ASP	A	178	102.693	17.932	-3.855	1.00	40.22	A
	ATOM	892	OD1	ASP	A	178	101.840	17.412	-4.612	1.00	42.64	A
	ATOM	893	OD2	ASP	A	178	103.079	17.398	-2.793	1.00	43.32	A

	ATOM	894	C	ASP A 178	101.195	19.859	-5.519	1.00	32.50	A
	ATOM	895	O	ASP A 178	99.999	19.723	-5.245	1.00	30.51	A
	ATOM	896	N	GLU A 179	101.684	19.584	-6.720	1.00	31.46	A
	ATOM	897	CA	GLU A 179	100.790	19.160	-7.779	1.00	32.00	A
5	ATOM	898	CB	GLU A 179	101.480	19.291	-9.138	1.00	33.70	A
	ATOM	899	CG	GLU A 179	100.666	18.711	-10.284	1.00	38.81	A
	ATOM	900	CD	GLU A 179	101.129	19.195	-11.646	1.00	42.71	A
	ATOM	901	OE1	GLU A 179	102.358	19.338	-11.844	1.00	43.96	A
	ATOM	902	OE2	GLU A 179	100.261	19.422	-12.523	1.00	44.44	A
10	ATOM	903	C	GLU A 179	100.189	17.766	-7.635	1.00	29.96	A
	ATOM	904	O	GLU A 179	99.023	17.564	-7.965	1.00	27.38	A
	ATOM	905	N	THR A 180	100.959	16.803	-7.141	1.00	30.09	A
	ATOM	906	CA	THR A 180	100.429	15.448	-7.007	1.00	29.75	A
	ATOM	907	CB	THR A 180	101.583	14.416	-6.738	1.00	30.62	A
15	ATOM	908	OG1	THR A 180	101.050	13.206	-6.179	1.00	30.65	A
	ATOM	909	CG2	THR A 180	102.615	14.991	-5.802	1.00	32.90	A
	ATOM	910	C	THR A 180	99.331	15.372	-5.935	1.00	29.43	A
	ATOM	911	O	THR A 180	98.312	14.710	-6.130	1.00	27.52	A
	ATOM	912	N	CYS A 181	99.522	16.079	-4.823	1.00	29.55	A
20	ATOM	913	CA	CYS A 181	98.535	16.091	-3.745	1.00	29.27	A
	ATOM	914	CB	CYS A 181	99.156	16.681	-2.480	1.00	31.47	A
	ATOM	915	SG	CYS A 181	100.580	15.747	-1.838	1.00	39.84	A
	ATOM	916	C	CYS A 181	97.271	16.879	-4.126	1.00	28.16	A
	ATOM	917	O	CYS A 181	96.156	16.495	-3.762	1.00	26.55	A
25	ATOM	918	N	THR A 182	97.441	17.984	-4.847	1.00	25.71	A
	ATOM	919	CA	THR A 182	96.293	18.784	-5.268	1.00	24.22	A
	ATOM	920	CB	THR A 182	96.714	20.043	-6.066	1.00	24.45	A
	ATOM	921	OG1	THR A 182	97.515	20.901	-5.241	1.00	22.57	A
	ATOM	922	CG2	THR A 182	95.483	20.809	-6.537	1.00	23.42	A
30	ATOM	923	C	THR A 182	95.447	17.915	-6.184	1.00	24.78	A
	ATOM	924	O	THR A 182	94.227	17.812	-6.020	1.00	23.72	A
	ATOM	925	N	ARG A 183	96.109	17.283	-7.149	1.00	23.96	A
	ATOM	926	CA	ARG A 183	95.422	16.419	-8.096	1.00	25.38	A
	ATOM	927	CB	ARG A 183	96.416	15.782	-9.073	1.00	24.74	A
35	ATOM	928	CG	ARG A 183	95.740	14.821	-10.044	1.00	27.88	A
	ATOM	929	CD	ARG A 183	96.704	14.244	-11.070	1.00	30.56	A
	ATOM	930	NE	ARG A 183	97.260	15.300	-11.904	1.00	34.63	A
	ATOM	931	CZ	ARG A 183	98.502	15.756	-11.802	1.00	33.50	A
	ATOM	932	NH1	ARG A 183	99.328	15.234	-10.903	1.00	31.79	A
40	ATOM	933	NH2	ARG A 183	98.901	16.754	-12.579	1.00	31.24	A
	ATOM	934	C	ARG A 183	94.648	15.318	-7.386	1.00	24.24	A
	ATOM	935	O	ARG A 183	93.466	15.099	-7.659	1.00	24.95	A
	ATOM	936	N	PHE A 184	95.319	14.628	-6.473	1.00	23.84	A
	ATOM	937	CA	PHE A 184	94.689	13.541	-5.742	1.00	23.63	A
45	ATOM	938	CB	PHE A 184	95.662	12.941	-4.730	1.00	25.29	A
	ATOM	939	CG	PHE A 184	95.086	11.787	-3.961	1.00	28.53	A
	ATOM	940	CD1	PHE A 184	94.958	10.531	-4.556	1.00	30.34	A
	ATOM	941	CD2	PHE A 184	94.620	11.964	-2.663	1.00	28.04	A
	ATOM	942	CE1	PHE A 184	94.370	9.465	-3.871	1.00	29.64	A
50	ATOM	943	CE2	PHE A 184	94.030	10.908	-1.969	1.00	30.28	A
	ATOM	944	CZ	PHE A 184	93.904	9.654	-2.576	1.00	29.09	A
	ATOM	945	C	PHE A 184	93.431	13.977	-5.003	1.00	23.55	A
	ATOM	946	O	PHE A 184	92.353	13.429	-5.219	1.00	24.05	A
	ATOM	947	N	TYR A 185	93.568	14.961	-4.124	1.00	22.27	A
55	ATOM	948	CA	TYR A 185	92.429	15.408	-3.344	1.00	21.69	A
	ATOM	949	CB	TYR A 185	92.925	16.295	-2.200	1.00	22.66	A
	ATOM	950	CG	TYR A 185	93.539	15.447	-1.097	1.00	25.54	A
	ATOM	951	CD1	TYR A 185	92.738	14.614	-0.314	1.00	26.51	A
	ATOM	952	CE1	TYR A 185	93.290	13.738	0.620	1.00	27.53	A

	ATOM	953	CD2	TYR	A	185	94.924	15.391	-0.908	1.00	28.66	A
	ATOM	954	CE2	TYR	A	185	95.496	14.514	0.032	1.00	29.09	A
	ATOM	955	CZ	TYR	A	185	94.667	13.688	0.790	1.00	29.75	A
	ATOM	956	OH	TYR	A	185	95.204	12.806	1.702	1.00	29.03	A
5	ATOM	957	C	TYR	A	185	91.316	16.058	-4.167	1.00	21.02	A
	ATOM	958	O	TYR	A	185	90.130	15.921	-3.851	1.00	18.76	A
	ATOM	959	N	THR	A	186	91.689	16.731	-5.244	1.00	19.87	A
	ATOM	960	CA	THR	A	186	90.690	17.337	-6.102	1.00	18.89	A
	ATOM	961	CB	THR	A	186	91.344	18.170	-7.200	1.00	19.73	A
10	ATOM	962	OG1	THR	A	186	92.115	19.218	-6.603	1.00	19.38	A
	ATOM	963	CG2	THR	A	186	90.282	18.765	-8.125	1.00	20.16	A
	ATOM	964	C	THR	A	186	89.905	16.201	-6.753	1.00	19.05	A
	ATOM	965	O	THR	A	186	88.675	16.244	-6.855	1.00	19.38	A
	ATOM	966	N	ALA	A	187	90.627	15.180	-7.200	1.00	18.33	A
15	ATOM	967	CA	ALA	A	187	89.984	14.043	-7.841	1.00	18.09	A
	ATOM	968	CB	ALA	A	187	91.024	13.035	-8.276	1.00	19.99	A
	ATOM	969	C	ALA	A	187	88.986	13.402	-6.886	1.00	18.07	A
	ATOM	970	O	ALA	A	187	87.873	13.055	-7.291	1.00	18.54	A
	ATOM	971	N	GLU	A	188	89.366	13.253	-5.617	1.00	16.56	A
20	ATOM	972	CA	GLU	A	188	88.446	12.660	-4.653	1.00	16.18	A
	ATOM	973	CB	GLU	A	188	89.099	12.495	-3.280	1.00	15.52	A
	ATOM	974	CG	GLU	A	188	90.266	11.519	-3.259	1.00	20.99	A
	ATOM	975	CD	GLU	A	188	90.297	10.636	-2.013	1.00	22.64	A
	ATOM	976	OE1	GLU	A	188	90.006	11.126	-0.899	1.00	22.95	A
25	ATOM	977	OE2	GLU	A	188	90.629	9.439	-2.149	1.00	27.37	A
	ATOM	978	C	GLU	A	188	87.189	13.508	-4.518	1.00	15.81	A
	ATOM	979	O	GLU	A	188	86.080	12.978	-4.460	1.00	15.92	A
	ATOM	980	N	ILE	A	189	87.364	14.825	-4.483	1.00	16.14	A
	ATOM	981	CA	ILE	A	189	86.235	15.733	-4.346	1.00	16.66	A
30	ATOM	982	CB	ILE	A	189	86.698	17.179	-4.083	1.00	16.57	A
	ATOM	983	CG2	ILE	A	189	85.485	18.098	-3.958	1.00	14.92	A
	ATOM	984	CG1	ILE	A	189	87.502	17.235	-2.784	1.00	16.19	A
	ATOM	985	CD1	ILE	A	189	88.202	18.559	-2.547	1.00	16.78	A
	ATOM	986	C	ILE	A	189	85.349	15.712	-5.580	1.00	16.29	A
35	ATOM	987	O	ILE	A	189	84.123	15.667	-5.471	1.00	15.80	A
	ATOM	988	N	VAL	A	190	85.962	15.743	-6.755	1.00	16.44	A
	ATOM	989	CA	VAL	A	190	85.186	15.704	-7.985	1.00	15.98	A
	ATOM	990	CB	VAL	A	190	86.101	15.692	-9.229	1.00	17.23	A
	ATOM	991	CG1	VAL	A	190	85.280	15.380	-10.488	1.00	16.01	A
40	ATOM	992	CG2	VAL	A	190	86.797	17.034	-9.373	1.00	13.82	A
	ATOM	993	C	VAL	A	190	84.351	14.433	-7.979	1.00	16.29	A
	ATOM	994	O	VAL	A	190	83.140	14.462	-8.194	1.00	15.64	A
	ATOM	995	N	SER	A	191	85.011	13.312	-7.723	1.00	18.94	A
	ATOM	996	CA	SER	A	191	84.337	12.015	-7.692	1.00	18.50	A
45	ATOM	997	CB	SER	A	191	85.357	10.914	-7.427	1.00	19.04	A
	ATOM	998	OG	SER	A	191	84.712	9.680	-7.206	1.00	23.87	A
	ATOM	999	C	SER	A	191	83.233	11.961	-6.642	1.00	16.85	A
	ATOM	1000	O	SER	A	191	82.227	11.281	-6.818	1.00	18.11	A
	ATOM	1001	N	ALA	A	192	83.419	12.671	-5.540	1.00	17.37	A
50	ATOM	1002	CA	ALA	A	192	82.395	12.687	-4.501	1.00	17.10	A
	ATOM	1003	CB	ALA	A	192	82.947	13.302	-3.222	1.00	17.08	A
	ATOM	1004	C	ALA	A	192	81.218	13.511	-5.020	1.00	18.24	A
	ATOM	1005	O	ALA	A	192	80.055	13.162	-4.798	1.00	18.91	A
	ATOM	1006	N	LEU	A	193	81.524	14.597	-5.725	1.00	16.53	A
55	ATOM	1007	CA	LEU	A	193	80.483	15.453	-6.270	1.00	17.25	A
	ATOM	1008	CB	LEU	A	193	81.091	16.750	-6.826	1.00	17.70	A
	ATOM	1009	CG	LEU	A	193	81.537	17.738	-5.732	1.00	22.88	A
	ATOM	1010	CD1	LEU	A	193	82.094	19.018	-6.348	1.00	22.13	A
	ATOM	1011	CD2	LEU	A	193	80.345	18.057	-4.839	1.00	20.04	A

	ATOM	1012	C	LEU A 193	79.664	14.737	-7.343	1.00	17.26 A
	ATOM	1013	O	LEU A 193	78.442	14.893	-7.402	1.00	15.43 A
	ATOM	1014	N	GLU A 194	80.330	13.962	-8.195	1.00	16.22 A
	ATOM	1015	CA	GLU A 194	79.612	13.232	-9.225	1.00	19.22 A
5	ATOM	1016	CB	GLU A 194	80.564	12.405	-10.086	1.00	20.77 A
	ATOM	1017	CG	GLU A 194	79.828	11.403	-10.978	1.00	26.27 A
	ATOM	1018	CD	GLU A 194	80.756	10.667	-11.934	1.00	29.43 A
	ATOM	1019	OE1	GLU A 194	81.840	10.222	-11.489	1.00	28.21 A
	ATOM	1020	OE2	GLU A 194	80.392	10.532	-13.127	1.00	31.66 A
10	ATOM	1021	C	GLU A 194	78.599	12.303	-8.566	1.00	19.71 A
	ATOM	1022	O	GLU A 194	77.466	12.159	-9.027	1.00	18.40 A
	ATOM	1023	N	TYR A 195	79.012	11.672	-7.479	1.00	19.22 A
	ATOM	1024	CA	TYR A 195	78.116	10.773	-6.781	1.00	19.69 A
	ATOM	1025	CB	TYR A 195	78.867	10.041	-5.667	1.00	21.39 A
15	ATOM	1026	CG	TYR A 195	77.975	9.143	-4.847	1.00	22.55 A
	ATOM	1027	CD1	TYR A 195	77.596	7.881	-5.316	1.00	23.14 A
	ATOM	1028	CE1	TYR A 195	76.743	7.065	-4.577	1.00	22.98 A
	ATOM	1029	CD2	TYR A 195	77.479	9.564	-3.618	1.00	21.58 A
	ATOM	1030	CE2	TYR A 195	76.625	8.755	-2.872	1.00	23.50 A
20	ATOM	1031	CZ	TYR A 195	76.263	7.512	-3.358	1.00	23.18 A
	ATOM	1032	OH	TYR A 195	75.413	6.732	-2.632	1.00	24.19 A
	ATOM	1033	C	TYR A 195	76.939	11.546	-6.172	1.00	18.80 A
	ATOM	1034	O	TYR A 195	75.782	11.164	-6.337	1.00	19.89 A
	ATOM	1035	N	LEU A 196	77.242	12.629	-5.469	1.00	15.26 A
25	ATOM	1036	CA	LEU A 196	76.210	13.430	-4.813	1.00	16.52 A
	ATOM	1037	CB	LEU A 196	76.855	14.586	-4.038	1.00	15.67 A
	ATOM	1038	CG	LEU A 196	75.923	15.401	-3.131	1.00	19.13 A
	ATOM	1039	CD1	LEU A 196	75.555	14.571	-1.903	1.00	18.42 A
	ATOM	1040	CD2	LEU A 196	76.604	16.681	-2.689	1.00	18.50 A
30	ATOM	1041	C	LEU A 196	75.209	13.993	-5.814	1.00	18.12 A
	ATOM	1042	O	LEU A 196	73.990	13.892	-5.637	1.00	16.25 A
	ATOM	1043	N	HIS A 197	75.732	14.592	-6.875	1.00	17.99 A
	ATOM	1044	CA	HIS A 197	74.873	15.171	-7.878	1.00	20.69 A
	ATOM	1045	CB	HIS A 197	75.715	16.004	-8.832	1.00	19.71 A
35	ATOM	1046	CG	HIS A 197	76.292	17.224	-8.190	1.00	19.55 A
	ATOM	1047	CD2	HIS A 197	76.069	17.777	-6.973	1.00	18.32 A
	ATOM	1048	ND1	HIS A 197	77.172	18.063	-8.837	1.00	20.26 A
	ATOM	1049	CE1	HIS A 197	77.463	19.084	-8.049	1.00	20.73 A
	ATOM	1050	NE2	HIS A 197	76.806	18.935	-6.913	1.00	19.92 A
40	ATOM	1051	C	HIS A 197	74.091	14.093	-8.609	1.00	22.80 A
	ATOM	1052	O	HIS A 197	72.974	14.328	-9.068	1.00	21.91 A
	ATOM	1053	N	GLY A 198	74.672	12.903	-8.697	1.00	23.17 A
	ATOM	1054	CA	GLY A 198	73.990	11.815	-9.366	1.00	26.22 A
	ATOM	1055	C	GLY A 198	72.718	11.436	-8.631	1.00	27.16 A
45	ATOM	1056	O	GLY A 198	71.837	10.787	-9.185	1.00	27.89 A
	ATOM	1057	N	LYS A 199	72.623	11.831	-7.369	1.00	27.84 A
	ATOM	1058	CA	LYS A 199	71.429	11.532	-6.587	1.00	28.20 A
	ATOM	1059	CB	LYS A 199	71.827	10.952	-5.227	1.00	29.35 A
	ATOM	1060	CG	LYS A 199	72.278	9.502	-5.321	1.00	32.74 A
50	ATOM	1061	CD	LYS A 199	72.737	8.944	-3.990	1.00	38.22 A
	ATOM	1062	CE	LYS A 199	72.600	7.424	-3.965	1.00	41.17 A
	ATOM	1063	NZ	LYS A 199	73.173	6.779	-5.185	1.00	44.70 A
	ATOM	1064	C	LYS A 199	70.542	12.765	-6.419	1.00	26.97 A
	ATOM	1065	O	LYS A 199	69.678	12.807	-5.551	1.00	28.27 A
55	ATOM	1066	N	GLY A 200	70.759	13.762	-7.269	1.00	25.62 A
	ATOM	1067	CA	GLY A 200	69.963	14.972	-7.222	1.00	24.75 A
	ATOM	1068	C	GLY A 200	70.070	15.713	-5.908	1.00	25.82 A
	ATOM	1069	O	GLY A 200	69.080	16.241	-5.401	1.00	26.10 A
	ATOM	1070	N	ILE A 201	71.275	15.759	-5.353	1.00	25.31 A

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        ATOM    1071   CA   ILE A 201        71.490  16.440  -4.089   1.00 26.11 A
        ATOM    1072   CB   ILE A 201        71.886  15.438  -2.983   1.00 27.58 A
        ATOM    1073   CG2  ILE A 201        72.242  16.175  -1.704   1.00 27.99 A
        ATOM    1074   CG1  ILE A 201        70.725  14.480  -2.719   1.00 27.89 A
   5    ATOM    1075   CD1  ILE A 201        71.068  13.366  -1.746   1.00 30.62 A
        ATOM    1076   C    ILE A 201        72.576  17.489  -4.233   1.00 25.92 A
        ATOM    1077   O    ILE A 201        73.599  17.269  -4.887   1.00 25.94 A
        ATOM    1078   N    ILE A 202        72.337  18.640  -3.627   1.00 25.04 A
        ATOM    1079   CA   ILE A 202        73.289  19.733  -3.680   1.00 26.57 A
   10   ATOM    1080   CB   ILE A 202        72.640  20.990  -4.286   1.00 27.69 A
        ATOM    1081   CG2  ILE A 202        73.695  22.068  -4.516   1.00 30.47 A
        ATOM    1082   CG1  ILE A 202        71.992  20.639  -5.625   1.00 30.89 A
        ATOM    1083   CD1  ILE A 202        71.083  21.736  -6.178   1.00 31.79 A
        ATOM    1084   C    ILE A 202        73.742  20.032  -2.252   1.00 26.14 A
   15   ATOM    1085   O    ILE A 202        72.912  20.201  -1.351   1.00 24.75 A
        ATOM    1086   N    HIS A 203        75.054  20.075  -2.042   1.00 25.17 A
        ATOM    1087   CA   HIS A 203        75.585  20.362  -0.717   1.00 24.36 A
        ATOM    1088   CB   HIS A 203        77.095  20.131  -0.677   1.00 23.06 A
        ATOM    1089   CG   HIS A 203        77.680  20.268   0.694   1.00 24.09 A
   20   ATOM    1090   CD2  HIS A 203        77.956  21.366   1.434   1.00 22.36 A
        ATOM    1091   ND1  HIS A 203        77.981  19.183   1.490   1.00 23.65 A
        ATOM    1092   CE1  HIS A 203        78.418  19.607   2.661   1.00 23.87 A
        ATOM    1093   NE2  HIS A 203        78.412  20.929   2.653   1.00 25.12 A
        ATOM    1094   C    HIS A 203        75.269  21.811  -0.330   1.00 24.71 A
   25   ATOM    1095   O    HIS A 203        74.633  22.055   0.693   1.00 24.27 A
        ATOM    1096   N    ARG A 204        75.724  22.758  -1.154   1.00 25.89 A
        ATOM    1097   CA   ARG A 204        75.490  24.199  -0.961   1.00 25.68 A
        ATOM    1098   CB   ARG A 204        74.033  24.471  -0.596   1.00 25.57 A
        ATOM    1099   CG   ARG A 204        73.079  24.319  -1.751   1.00 29.26 A
   30   ATOM    1100   CD   ARG A 204        71.815  25.118  -1.509   1.00 29.86 A
        ATOM    1101   NE   ARG A 204        71.065  24.603  -0.373   1.00 33.90 A
        ATOM    1102   CZ   ARG A 204        70.021  25.219   0.170   1.00 36.01 A
        ATOM    1103   NH1  ARG A 204        69.607  26.383  -0.322   1.00 37.08 A
        ATOM    1104   NH2  ARG A 204        69.387  24.668   1.197   1.00 34.14 A
   35   ATOM    1105   C    ARG A 204        76.373  24.935   0.034   1.00 26.91 A
        ATOM    1106   O    ARG A 204        76.210  26.144   0.243   1.00 26.29 A
        ATOM    1107   N    ASP A 205        77.303  24.221   0.654   1.00 26.23 A
        ATOM    1108   CA   ASP A 205        78.203  24.849   1.604   1.00 24.46 A
        ATOM    1109   CB   ASP A 205        77.557  24.909   2.990   1.00 28.25 A
   40   ATOM    1110   CG   ASP A 205        78.203  25.954   3.890   1.00 30.95 A
        ATOM    1111   OD1  ASP A 205        78.872  26.862   3.354   1.00 35.13 A
        ATOM    1112   OD2  ASP A 205        78.034  25.880   5.127   1.00 33.48 A
        ATOM    1113   C    ASP A 205        79.483  24.039   1.631   1.00 24.22 A
        ATOM    1114   O    ASP A 205        79.998  23.676   2.685   1.00 23.62 A
   45   ATOM    1115   N    LEU A 206        79.995  23.755   0.442   1.00 23.31 A
        ATOM    1116   CA   LEU A 206        81.206  22.978   0.321   1.00 24.19 A
        ATOM    1117   CB   LEU A 206        81.311  22.406  -1.088   1.00 24.78 A
        ATOM    1118   CG   LEU A 206        82.353  21.309  -1.285   1.00 25.24 A
        ATOM    1119   CD1  LEU A 206        82.075  20.173  -0.317   1.00 26.72 A
   50   ATOM    1120   CD2  LEU A 206        82.298  20.808  -2.720   1.00 24.32 A
        ATOM    1121   C    LEU A 206        82.408  23.853   0.623   1.00 24.52 A
        ATOM    1122   O    LEU A 206        82.508  24.977   0.130   1.00 24.34 A
        ATOM    1123   N    LYS A 207        83.328  23.330   1.424   1.00 22.98 A
        ATOM    1124   CA   LYS A 207        84.517  24.083   1.796   1.00 23.05 A
   55   ATOM    1125   CB   LYS A 207        84.113  25.305   2.629   1.00 21.18 A
        ATOM    1126   CG   LYS A 207        83.278  24.948   3.830   1.00 19.29 A
        ATOM    1127   CD   LYS A 207        82.775  26.179   4.568   1.00 23.68 A
        ATOM    1128   CE   LYS A 207        81.913  25.781   5.767   1.00 21.99 A
        ATOM    1129   NZ   LYS A 207        81.580  26.910   6.686   1.00 25.14 A
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      ATOM   1130  C    LYS A 207      85.444  23.183   2.602  1.00 23.54 A
      ATOM   1131  O    LYS A 207      85.014  22.169   3.144  1.00 26.04 A
      ATOM   1132  N    PRO A 208      86.728  23.550   2.697  1.00 23.78 A
      ATOM   1133  CD   PRO A 208      87.309  24.764   2.100  1.00 21.90 A
  5   ATOM   1134  CA   PRO A 208      87.754  22.801   3.429  1.00 23.64 A
      ATOM   1135  CB   PRO A 208      88.948  23.750   3.397  1.00 22.67 A
      ATOM   1136  CG   PRO A 208      88.779  24.432   2.084  1.00 23.00 A
      ATOM   1137  C    PRO A 208      87.393  22.390   4.859  1.00 24.47 A
      ATOM   1138  O    PRO A 208      87.890  21.378   5.358  1.00 24.20 A
 10   ATOM   1139  N    GLU A 209      86.541  23.176   5.514  1.00 25.33 A
      ATOM   1140  CA   GLU A 209      86.132  22.903   6.894  1.00 26.78 A
      ATOM   1141  CB   GLU A 209      85.641  24.190   7.570  1.00 27.82 A
      ATOM   1142  CG   GLU A 209      86.616  25.359   7.479  1.00 34.76 A
      ATOM   1143  CD   GLU A 209      86.459  26.183   6.199  1.00 39.84 A
 15   ATOM   1144  OE1  GLU A 209      86.575  25.628   5.079  1.00 38.56 A
      ATOM   1145  OE2  GLU A 209      86.219  27.405   6.322  1.00 44.97 A
      ATOM   1146  C    GLU A 209      85.039  21.840   6.972  1.00 26.70 A
      ATOM   1147  O    GLU A 209      84.786  21.269   8.035  1.00 29.78 A
      ATOM   1148  N    ASN A 210      84.395  21.583   5.841  1.00 24.55 A
 20   ATOM   1149  CA   ASN A 210      83.339  20.587   5.751  1.00 24.33 A
      ATOM   1150  CB   ASN A 210      82.195  21.105   4.866  1.00 27.29 A
      ATOM   1151  CG   ASN A 210      81.225  21.998   5.622  1.00 31.63 A
      ATOM   1152  OD1  ASN A 210      80.280  22.539   5.040  1.00 35.25 A
      ATOM   1153  ND2  ASN A 210      81.449  22.155   6.923  1.00 30.78 A
 25   ATOM   1154  C    ASN A 210      83.885  19.289   5.158  1.00 22.61 A
      ATOM   1155  O    ASN A 210      83.207  18.268   5.155  1.00 19.95 A
      ATOM   1156  N    ILE A 211      85.105  19.344   4.638  1.00 22.15 A
      ATOM   1157  CA   ILE A 211      85.733  18.174   4.043  1.00 21.36 A
      ATOM   1158  CB   ILE A 211      86.467  18.538   2.744  1.00 20.33 A
 30   ATOM   1159  CG2  ILE A 211      87.167  17.315   2.180  1.00 20.04 A
      ATOM   1160  CG1  ILE A 211      85.475  19.089   1.719  1.00 19.57 A
      ATOM   1161  CD1  ILE A 211      86.162  19.718   0.517  1.00 20.56 A
      ATOM   1162  C    ILE A 211      86.733  17.629   5.048  1.00 22.45 A
      ATOM   1163  O    ILE A 211      87.805  18.209   5.254  1.00 21.87 A
 35   ATOM   1164  N    LEU A 212      86.377  16.510   5.670  1.00 21.03 A
      ATOM   1165  CA   LEU A 212      87.228  15.910   6.685  1.00 20.43 A
      ATOM   1166  CB   LEU A 212      86.352  15.331   7.801  1.00 19.57 A
      ATOM   1167  CG   LEU A 212      85.270  16.281   8.347  1.00 19.01 A
      ATOM   1168  CD1  LEU A 212      84.543  15.613   9.494  1.00 16.54 A
 40   ATOM   1169  CD2  LEU A 212      85.903  17.592   8.817  1.00 19.58 A
      ATOM   1170  C    LEU A 212      88.148  14.833   6.139  1.00 20.95 A
      ATOM   1171  O    LEU A 212      88.034  14.420   4.983  1.00 20.16 A
      ATOM   1172  N    LEU A 213      89.069  14.379   6.978  1.00 21.07 A
      ATOM   1173  CA   LEU A 213      89.991  13.330   6.578  1.00 21.58 A
 45   ATOM   1174  CB   LEU A 213      91.415  13.882   6.520  1.00 21.17 A
      ATOM   1175  CG   LEU A 213      91.633  14.944   5.440  1.00 21.26 A
      ATOM   1176  CD1  LEU A 213      93.051  15.466   5.514  1.00 23.93 A
      ATOM   1177  CD2  LEU A 213      91.378  14.335   4.070  1.00 23.36 A
      ATOM   1178  C    LEU A 213      89.912  12.161   7.554  1.00 22.28 A
 50   ATOM   1179  O    LEU A 213      89.948  12.354   8.766  1.00 23.80 A
      ATOM   1180  N    ASN A 214      89.786  10.949   7.025  1.00 22.96 A
      ATOM   1181  CA   ASN A 214      89.718   9.766   7.872  1.00 22.83 A
      ATOM   1182  CB   ASN   214      88.997   8.647   7.103  0.50 23.75 AC1
      ATOM   1183  CG   ASN   214      89.144   7.286   7.756  0.50 25.62 AC1
 55   ATOM   1184  OD1  ASN   214      90.212   6.673   7.713  0.50 25.34 AC1
      ATOM   1185  ND2  ASN   214      88.066   6.803   8.363  0.50 26.41 AC1
      ATOM   1186  C    ASN A 214      91.151   9.354   8.228  1.00 23.68 A
      ATOM   1187  O    ASN A 214      92.112   9.934   7.716  1.00 20.85 A
      ATOM   1188  N    GLU A 215      91.291   8.379   9.119  1.00 25.06 A
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      ATOM   1189   CA    GLU A 215      92.603    7.901    9.545   1.00 26.20 A
      ATOM   1190   CB    GLU A 215      92.453    6.669   10.435   1.00 26.19 A
      ATOM   1191   CG    GLU A 215      93.770    6.153   10.985   1.00 29.08 A
      ATOM   1192   CD    GLU A 215      93.589    4.963   11.907   0.00 28.21 A
   5  ATOM   1193   OE1   GLU A 215      93.064    3.927   11.449   0.00 28.42 A
      ATOM   1194   OE2   GLU A 215      93.973    5.065   13.092   0.00 28.42 A
      ATOM   1195   C     GLU A 215      93.532    7.566    8.385   1.00 26.12 A
      ATOM   1196   O     GLU A 215      94.746    7.743    8.487   1.00 29.48 A
      ATOM   1197   N     ASP A 216      92.976    7.070    7.287   1.00 25.52 A
  10  ATOM   1198   CA    ASP A 216      93.798    6.728    6.133   1.00 25.79 A
      ATOM   1199   CB    ASP   216      93.164    5.564    5.376   0.50 27.09 AC1
      ATOM   1200   CG    ASP   216      93.450    4.231    6.027   0.50 29.11 AC1
      ATOM   1201   OD1   ASP   216      93.206    4.098    7.244   0.50 31.09 AC1
      ATOM   1202   OD2   ASP   216      93.921    3.315    5.320   0.50 31.52 AC1
  15  ATOM   1203   C     ASP A 216      94.034    7.896    5.173   1.00 24.88 A
      ATOM   1204   O     ASP A 216      94.586    7.719    4.094   1.00 26.27 A
      ATOM   1205   N     MET A 217      93.615    9.087    5.578   1.00 25.04 A
      ATOM   1206   CA    MET A 217      93.789   10.301    4.792   1.00 24.86 A
      ATOM   1207   CB    MET A 217      95.270   10.503    4.454   1.00 28.81 A
  20  ATOM   1208   CG    MET A 217      96.139   10.834    5.676   1.00 29.66 A
      ATOM   1209   SD    MET A 217      95.577   12.323    6.551   1.00 34.79 A
      ATOM   1210   CE    MET A 217      96.130   13.598    5.411   1.00 30.61 A
      ATOM   1211   C     MET A 217      92.942   10.437    3.528   1.00 24.93 A
      ATOM   1212   O     MET A 217      93.277   11.215    2.629   1.00 23.08 A
  25  ATOM   1213   N     HIS A 218      91.855    9.678    3.450   1.00 21.48 A
      ATOM   1214   CA    HIS A 218      90.947    9.799    2.319   1.00 21.72 A
      ATOM   1215   CB    HIS A 218      90.325    8.444    1.963   1.00 21.43 A
      ATOM   1216   CG    HIS A 218      91.225    7.578    1.138   1.00 24.55 A
      ATOM   1217   CD2   HIS A 218      91.951    6.478    1.458   1.00 23.50 A
  30  ATOM   1218   ND1   HIS A 218      91.522    7.860   -0.179   1.00 23.64 A
      ATOM   1219   CE1   HIS A 218      92.392    6.975   -0.633   1.00 21.12 A
      ATOM   1220   NE2   HIS A 218      92.670    6.128    0.340   1.00 22.96 A
      ATOM   1221   C     HIS A 218      89.891   10.785    2.812   1.00 20.49 A
      ATOM   1222   O     HIS A 218      89.683   10.911    4.018   1.00 20.60 A
  35  ATOM   1223   N     ILE A 219      89.231   11.488    1.897   1.00 18.82 A
      ATOM   1224   CA    ILE A 219      88.244   12.473    2.306   1.00 17.27 A
      ATOM   1225   CB    ILE A 219      87.914   13.487    1.178   1.00 15.59 A
      ATOM   1226   CG2   ILE A 219      89.175   14.201    0.718   1.00 14.62 A
      ATOM   1227   CG1   ILE A 219      87.252   12.769    0.006   1.00 16.04 A
  40  ATOM   1228   CD1   ILE A 219      86.458   13.685   -0.888   1.00 15.29 A
      ATOM   1229   C     ILE A 219      86.934   11.885    2.772   1.00 17.64 A
      ATOM   1230   O     ILE A 219      86.564   10.774    2.402   1.00 18.93 A
      ATOM   1231   N     GLN A 220      86.240   12.658    3.597   1.00 19.19 A
      ATOM   1232   CA    GLN A 220      84.933   12.293    4.119   1.00 21.50 A
  45  ATOM   1233   CB    GLN A 220      85.061   11.585    5.475   1.00 23.96 A
      ATOM   1234   CG    GLN A 220      85.583   10.151    5.334   1.00 29.77 A
      ATOM   1235   CD    GLN A 220      84.945    9.182    6.319   1.00 33.77 A
      ATOM   1236   OE1   GLN A 220      85.257    9.188    7.513   1.00 37.87 A
      ATOM   1237   NE2   GLN A 220      84.040    8.347    5.821   1.00 34.29 A
  50  ATOM   1238   C     GLN A 220      84.158   13.599    4.240   1.00 21.53 A
      ATOM   1239   O     GLN A 220      84.367   14.393    5.166   1.00 22.54 A
      ATOM   1240   N     ILE A 221      83.284   13.833    3.270   1.00 19.63 A
      ATOM   1241   CA    ILE A 221      82.498   15.054    3.234   1.00 19.30 A
      ATOM   1242   CB    ILE A 221      82.055   15.366    1.785   1.00 20.41 A
  55  ATOM   1243   CG2   ILE A 221      81.237   16.639    1.738   1.00 19.39 A
      ATOM   1244   CG1   ILE A 221      83.290   15.524    0.900   1.00 19.44 A
      ATOM   1245   CD1   ILE A 221      82.977   15.802   -0.550   1.00 17.44 A
      ATOM   1246   C     ILE A 221      81.284   14.951    4.141   1.00 18.36 A
      ATOM   1247   O     ILE A 221      80.627   13.911    4.204   1.00 15.98 A
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	ATOM	1248	N	THR A 222	80.995	16.024	4.864	1.00	19.59	A
	ATOM	1249	CA	THR A 222	79.844	16.008	5.753	1.00	22.76	A
	ATOM	1250	CB	THR A 222	80.218	15.420	7.126	1.00	23.86	A
	ATOM	1251	OG1	THR A 222	79.019	15.145	7.863	1.00	28.20	A
5	ATOM	1252	CG2	THR A 222	81.105	16.380	7.908	1.00	23.65	A
	ATOM	1253	C	THR A 222	79.179	17.370	5.933	1.00	23.55	A
	ATOM	1254	O	THR A 222	79.505	18.334	5.229	1.00	25.65	A
	ATOM	1255	N	ASP A 223	78.248	17.427	6.881	1.00	24.38	A
	ATOM	1256	CA	ASP A 223	77.449	18.611	7.202	1.00	25.25	A
10	ATOM	1257	CB	ASP A 223	78.303	19.865	7.422	1.00	26.12	A
	ATOM	1258	CG	ASP A 223	77.538	20.962	8.175	1.00	29.92	A
	ATOM	1259	OD1	ASP A 223	76.288	20.876	8.278	1.00	31.91	A
	ATOM	1260	OD2	ASP A 223	78.177	21.911	8.671	1.00	32.94	A
	ATOM	1261	C	ASP A 223	76.461	18.882	6.080	1.00	25.61	A
15	ATOM	1262	O	ASP A 223	76.693	19.744	5.227	1.00	25.81	A
	ATOM	1263	N	PHE A 224	75.358	18.139	6.098	1.00	25.18	A
	ATOM	1264	CA	PHE A 224	74.310	18.266	5.096	1.00	26.75	A
	ATOM	1265	CB	PHE A 224	73.860	16.879	4.635	1.00	27.24	A
	ATOM	1266	CG	PHE A 224	74.857	16.189	3.753	1.00	28.10	A
20	ATOM	1267	CD1	PHE A 224	74.889	16.450	2.388	1.00	29.12	A
	ATOM	1268	CD2	PHE A 224	75.790	15.313	4.291	1.00	28.67	A
	ATOM	1269	CE1	PHE A 224	75.841	15.847	1.567	1.00	30.28	A
	ATOM	1270	CE2	PHE A 224	76.745	14.706	3.482	1.00	31.49	A
	ATOM	1271	CZ	PHE A 224	76.770	14.973	2.117	1.00	30.54	A
25	ATOM	1272	C	PHE A 224	73.124	19.038	5.632	1.00	27.73	A
	ATOM	1273	O	PHE A 224	72.005	18.895	5.140	1.00	27.84	A
	ATOM	1274	N	GLY A 225	73.378	19.862	6.643	1.00	29.36	A
	ATOM	1275	CA	GLY A 225	72.319	20.656	7.235	1.00	30.10	A
	ATOM	1276	C	GLY A 225	71.825	21.741	6.297	1.00	31.32	A
30	ATOM	1277	O	GLY A 225	70.714	22.248	6.451	1.00	32.90	A
	ATOM	1278	N	THR A 226	72.640	22.091	5.311	1.00	29.95	A
	ATOM	1279	CA	THR A 226	72.261	23.132	4.365	1.00	32.06	A
	ATOM	1280	CB	THR A 226	73.381	24.167	4.226	1.00	33.35	A
	ATOM	1281	OG1	THR A 226	74.454	23.608	3.455	1.00	35.74	A
35	ATOM	1282	CG2	THR A 226	73.920	24.542	5.593	1.00	34.02	A
	ATOM	1283	C	THR A 226	71.979	22.551	2.983	1.00	31.11	A
	ATOM	1284	O	THR A 226	71.801	23.288	2.012	1.00	30.89	A
	ATOM	1285	N	ALA A 227	71.938	21.230	2.899	1.00	30.02	A
	ATOM	1286	CA	ALA A 227	71.714	20.566	1.624	1.00	32.20	A
40	ATOM	1287	CB	ALA A 227	71.906	19.057	1.770	1.00	29.19	A
	ATOM	1288	C	ALA A 227	70.345	20.865	1.045	1.00	32.77	A
	ATOM	1289	O	ALA A 227	69.431	21.269	1.761	1.00	34.17	A
	ATOM	1290	N	ALA A 228	70.229	20.684	-0.266	1.00	33.18	A
	ATOM	1291	CA	ALA A 228	68.980	20.902	-0.982	1.00	34.43	A
45	ATOM	1292	CB	ALA A 228	69.079	22.146	-1.861	1.00	32.03	A
	ATOM	1293	C	ALA A 228	68.742	19.674	-1.846	1.00	35.25	A
	ATOM	1294	O	ALA A 228	69.612	19.284	-2.622	1.00	36.70	A
	ATOM	1295	N	VAL A 229	67.578	19.056	-1.698	1.00	36.21	A
	ATOM	1296	CA	VAL A 229	67.246	17.876	-2.488	1.00	37.95	A
50	ATOM	1297	CB	VAL A 229	66.438	16.857	-1.674	1.00	37.37	A
	ATOM	1298	CG1	VAL A 229	66.192	15.609	-2.506	1.00	35.62	A
	ATOM	1299	CG2	VAL A 229	67.176	16.522	-0.394	1.00	36.39	A
	ATOM	1300	C	VAL A 229	66.393	18.341	-3.649	1.00	40.15	A
	ATOM	1301	O	VAL A 229	65.353	18.965	-3.446	1.00	39.20	A
55	ATOM	1302	N	LEU A 230	66.836	18.044	-4.865	1.00	43.75	A
	ATOM	1303	CA	LEU A 230	66.105	18.455	-6.054	1.00	48.04	A
	ATOM	1304	CB	LEU A 230	67.039	18.473	-7.258	1.00	48.59	A
	ATOM	1305	CG	LEU A 230	68.123	19.552	-7.212	1.00	50.35	A
	ATOM	1306	CD1	LEU A 230	69.118	19.312	-8.326	1.00	50.62	A

	ATOM	1307	CD2	LEU	A	230	67.488	20.932	-7.330	1.00	50.11	A
	ATOM	1308	C	LEU	A	230	64.905	17.569	-6.346	1.00	51.38	A
	ATOM	1309	O	LEU	A	230	64.929	16.364	-6.095	1.00	51.84	A
	ATOM	1310	N	SER	A	231	63.854	18.190	-6.872	1.00	56.03	A
5	ATOM	1311	CA	SER	A	231	62.616	17.502	-7.224	1.00	60.24	A
	ATOM	1312	CB	SER	A	231	61.528	17.806	-6.186	1.00	60.77	A
	ATOM	1313	OG	SER	A	231	61.222	19.192	-6.150	1.00	61.08	A
	ATOM	1314	C	SER	A	231	62.115	17.894	-8.622	1.00	62.65	A
	ATOM	1315	O	SER	A	231	61.527	17.068	-9.326	1.00	63.42	A
10	ATOM	1316	N	PRO	A	232	62.334	19.161	-9.040	1.00	64.66	A
	ATOM	1317	CD	PRO	A	232	62.903	20.298	-8.289	1.00	64.95	A
	ATOM	1318	CA	PRO	A	232	61.882	19.604	-10.367	1.00	65.69	A
	ATOM	1319	CB	PRO	A	232	62.409	21.037	-10.450	1.00	65.77	A
	ATOM	1320	CG	PRO	A	232	62.341	21.493	-9.031	1.00	65.52	A
15	ATOM	1321	C	PRO	A	232	62.408	18.731	-11.505	1.00	66.28	A
	ATOM	1322	O	PRO	A	232	62.858	19.241	-12.532	1.00	66.55	A
	ATOM	1323	N	ALA	A	239	65.927	26.021	-3.995	1.00	92.57	A
	ATOM	1324	CA	ALA	A	239	67.330	26.100	-3.606	1.00	92.64	A
	ATOM	1325	CB	ALA	A	239	68.187	25.262	-4.558	1.00	92.15	A
20	ATOM	1326	C	ALA	A	239	67.769	27.558	-3.640	1.00	92.34	A
	ATOM	1327	O	ALA	A	239	68.683	27.930	-4.373	1.00	92.47	A
	ATOM	1328	N	ASN	A	240	67.108	28.379	-2.833	1.00	91.92	A
	ATOM	1329	CA	ASN	A	240	67.396	29.809	-2.767	1.00	91.12	A
	ATOM	1330	CB	ASN	A	240	66.374	30.566	-3.617	1.00	92.32	A
25	ATOM	1331	CG	ASN	A	240	64.947	30.084	-3.378	1.00	93.20	A
	ATOM	1332	OD1	ASN	A	240	64.471	30.061	-2.244	1.00	93.46	A
	ATOM	1333	ND2	ASN	A	240	64.261	29.697	-4.452	1.00	94.00	A
	ATOM	1334	C	ASN	A	240	67.334	30.332	-1.335	1.00	89.78	A
	ATOM	1335	O	ASN	A	240	67.766	31.453	-1.053	1.00	89.80	A
30	ATOM	1336	N	ALA	A	241	66.787	29.515	-0.441	1.00	88.16	A
	ATOM	1337	CA	ALA	A	241	66.624	29.891	0.955	1.00	86.55	A
	ATOM	1338	C	ALA	A	241	67.901	29.893	1.792	1.00	84.55	A
	ATOM	1339	O	ALA	A	241	67.865	30.268	2.961	1.00	84.76	A
	ATOM	1340	CB	ALA	A	241	65.583	28.978	1.623	1.00	88.01	A
35	ATOM	1341	N	PHE	A	242	69.028	29.494	1.216	1.00	82.28	A
	ATOM	1342	CA	PHE	A	242	70.264	29.483	1.993	1.00	79.83	A
	ATOM	1343	CB	PHE	A	242	70.718	28.046	2.282	1.00	79.60	A
	ATOM	1344	CG	PHE	A	242	71.980	27.962	3.100	1.00	79.10	A
	ATOM	1345	CD1	PHE	A	242	72.024	28.483	4.388	1.00	79.45	A
40	ATOM	1346	CD2	PHE	A	242	73.131	27.392	2.571	1.00	79.42	A
	ATOM	1347	CE1	PHE	A	242	73.202	28.442	5.143	1.00	79.29	A
	ATOM	1348	CE2	PHE	A	242	74.314	27.345	3.317	1.00	80.20	A
	ATOM	1349	CZ	PHE	A	242	74.348	27.872	4.605	1.00	79.98	A
	ATOM	1350	C	PHE	A	242	71.402	30.231	1.322	1.00	77.56	A
45	ATOM	1351	O	PHE	A	242	71.347	30.524	0.130	1.00	78.59	A
	ATOM	1352	N	VAL	A	243	72.440	30.529	2.098	1.00	73.76	A
	ATOM	1353	CA	VAL	A	243	73.595	31.238	1.579	1.00	70.34	A
	ATOM	1354	CB	VAL	A	243	73.864	32.515	2.405	1.00	71.71	A
	ATOM	1355	CG1	VAL	A	243	75.087	33.238	1.859	1.00	71.29	A
50	ATOM	1356	CG2	VAL	A	243	72.638	33.425	2.376	1.00	71.41	A
	ATOM	1357	C	VAL	A	243	74.851	30.362	1.581	1.00	66.69	A
	ATOM	1358	O	VAL	A	243	75.232	29.802	0.552	1.00	66.50	A
	ATOM	1359	N	GLY	A	244	75.496	30.245	2.737	1.00	62.34	A
	ATOM	1360	CA	GLY	A	244	76.708	29.444	2.829	1.00	56.48	A
55	ATOM	1361	C	GLY	A	244	77.889	30.327	3.168	1.00	52.17	A
	ATOM	1362	O	GLY	A	244	77.769	31.547	3.136	1.00	52.14	A
	ATOM	1363	N	THR	A	245	79.031	29.733	3.490	1.00	48.25	A
	ATOM	1364	CA	THR	A	245	80.201	30.530	3.838	1.00	44.49	A
	ATOM	1365	CB	THR	A	245	81.413	29.633	4.106	1.00	45.53	A

	ATOM	1366	OG1	THR	A	245	80.994	28.514	4.899	1.00	45.14	A
	ATOM	1367	CG2	THR	A	245	82.486	30.403	4.873	1.00	42.13	A
	ATOM	1368	C	THR	A	245	80.523	31.537	2.734	1.00	40.69	A
	ATOM	1369	O	THR	A	245	80.722	31.175	1.572	1.00	38.45	A
5	ATOM	1370	N	ALA	A	246	80.570	32.804	3.127	1.00	36.53	A
	ATOM	1371	CA	ALA	A	246	80.816	33.915	2.219	1.00	34.68	A
	ATOM	1372	CB	ALA	A	246	81.106	35.186	3.023	1.00	34.13	A
	ATOM	1373	C	ALA	A	246	81.896	33.718	1.164	1.00	33.21	A
	ATOM	1374	O	ALA	A	246	81.655	33.958	-0.015	1.00	33.62	A
10	ATOM	1375	N	GLN	A	247	83.082	33.281	1.567	1.00	31.02	A
	ATOM	1376	CA	GLN	A	247	84.151	33.112	0.595	1.00	31.05	A
	ATOM	1377	CB	GLN	A	247	85.476	32.814	1.310	1.00	33.25	A
	ATOM	1378	CG	GLN	A	247	85.921	33.931	2.253	1.00	37.08	A
	ATOM	1379	CD	GLN	A	247	87.378	33.831	2.665	1.00	40.56	A
15	ATOM	1380	OE1	GLN	A	247	88.272	34.328	1.972	1.00	41.24	A
	ATOM	1381	NE2	GLN	A	247	87.626	33.180	3.794	1.00	41.86	A
	ATOM	1382	C	GLN	A	247	83.895	32.069	-0.488	1.00	28.53	A
	ATOM	1383	O	GLN	A	247	84.544	32.093	-1.527	1.00	27.93	A
	ATOM	1384	N	TYR	A	248	82.934	31.177	-0.267	1.00	28.01	A
20	ATOM	1385	CA	TYR	A	248	82.643	30.115	-1.238	1.00	28.20	A
	ATOM	1386	CB	TYR	A	248	82.725	28.757	-0.532	1.00	24.94	A
	ATOM	1387	CG	TYR	A	248	84.064	28.533	0.126	1.00	23.77	A
	ATOM	1388	CD1	TYR	A	248	85.153	28.073	-0.611	1.00	23.01	A
	ATOM	1389	CE1	TYR	A	248	86.421	27.975	-0.039	1.00	24.66	A
25	ATOM	1390	CD2	TYR	A	248	84.270	28.879	1.464	1.00	24.01	A
	ATOM	1391	CE2	TYR	A	248	85.535	28.785	2.050	1.00	24.49	A
	ATOM	1392	CZ	TYR	A	248	86.606	28.338	1.286	1.00	26.11	A
	ATOM	1393	OH	TYR	A	248	87.868	28.305	1.828	1.00	27.54	A
	ATOM	1394	C	TYR	A	248	81.301	30.249	-1.961	1.00	28.78	A
30	ATOM	1395	O	TYR	A	248	80.939	29.405	-2.777	1.00	30.26	A
	ATOM	1396	N	VAL	A	249	80.576	31.319	-1.663	1.00	28.83	A
	ATOM	1397	CA	VAL	A	249	79.281	31.584	-2.275	1.00	28.70	A
	ATOM	1398	CB	VAL	A	249	78.625	32.803	-1.601	1.00	29.37	A
	ATOM	1399	CG1	VAL	A	249	77.333	33.163	-2.297	1.00	30.56	A
35	ATOM	1400	CG2	VAL	A	249	78.376	32.488	-0.127	1.00	31.25	A
	ATOM	1401	C	VAL	A	249	79.404	31.837	-3.779	1.00	28.19	A
	ATOM	1402	O	VAL	A	249	80.335	32.497	-4.231	1.00	27.69	A
	ATOM	1403	N	SER	A	250	78.460	31.308	-4.549	1.00	28.16	A
	ATOM	1404	CA	SER	A	250	78.476	31.481	-5.993	1.00	29.05	A
40	ATOM	1405	CB	SER	A	250	77.835	30.273	-6.691	1.00	31.08	A
	ATOM	1406	OG	SER	A	250	76.497	30.058	-6.264	1.00	31.33	A
	ATOM	1407	C	SER	A	250	77.737	32.752	-6.376	1.00	29.69	A
	ATOM	1408	O	SER	A	250	76.820	33.191	-5.685	1.00	29.14	A
	ATOM	1409	N	PRO	A	251	78.131	33.361	-7.494	1.00	29.35	A
45	ATOM	1410	CD	PRO	A	251	79.147	32.917	-8.463	1.00	29.28	A
	ATOM	1411	CA	PRO	A	251	77.477	34.592	-7.934	1.00	30.27	A
	ATOM	1412	CB	PRO	A	251	78.214	34.932	-9.235	1.00	29.87	A
	ATOM	1413	CG	PRO	A	251	78.687	33.588	-9.730	1.00	30.48	A
	ATOM	1414	C	PRO	A	251	75.961	34.495	-8.114	1.00	30.86	A
50	ATOM	1415	O	PRO	A	251	75.246	35.442	-7.801	1.00	33.28	A
	ATOM	1416	N	GLU	A	252	75.459	33.367	-8.602	1.00	30.19	A
	ATOM	1417	CA	GLU	A	252	74.014	33.244	-8.802	1.00	30.91	A
	ATOM	1418	CB	GLU	A	252	73.649	31.903	-9.449	1.00	30.61	A
	ATOM	1419	CG	GLU	A	252	74.162	30.682	-8.689	1.00	33.88	A
55	ATOM	1420	CD	GLU	A	252	75.493	30.171	-9.219	1.00	32.82	A
	ATOM	1421	OE1	GLU	A	252	76.277	30.987	-9.747	1.00	35.25	A
	ATOM	1422	OE2	GLU	A	252	75.756	28.956	-9.095	1.00	32.14	A
	ATOM	1423	C	GLU	A	252	73.260	33.390	-7.494	1.00	32.09	A
	ATOM	1424	O	GLU	A	252	72.157	33.928	-7.469	1.00	32.01	A

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     ATOM   1425   N    LEU A 253      73.852  32.900   -6.408  1.00 33.87 A
     ATOM   1426   CA   LEU A 253      73.230  32.988   -5.096  1.00 35.16 A
     ATOM   1427   CB   LEU A 253      74.031  32.183   -4.078  1.00 37.63 A
     ATOM   1428   CG   LEU A 253      73.371  30.937   -3.479  1.00 40.98 A
 5   ATOM   1429   CD1  LEU A 253      74.302  30.321   -2.433  1.00 42.16 A
     ATOM   1430   CD2  LEU A 253      72.043  31.314   -2.835  1.00 40.33 A
     ATOM   1431   C    LEU A 253      73.148  34.445   -4.640  1.00 37.20 A
     ATOM   1432   O    LEU A 253      72.300  34.810   -3.820  1.00 37.33 A
     ATOM   1433   N    LEU A 254      74.036  35.276   -5.171  1.00 36.48 A
10   ATOM   1434   CA   LEU A 254      74.052  36.686   -4.816  1.00 37.76 A
     ATOM   1435   CB   LEU A 254      75.481  37.235   -4.890  1.00 35.47 A
     ATOM   1436   CG   LEU A 254      76.512  36.692   -3.899  1.00 32.31 A
     ATOM   1437   CD1  LEU A 254      77.839  37.416   -4.108  1.00 32.18 A
     ATOM   1438   CD2  LEU A 254      76.019  36.891   -2.474  1.00 29.68 A
15   ATOM   1439   C    LEU A 254      73.150  37.496   -5.737  1.00 39.82 A
     ATOM   1440   O    LEU A 254      72.772  38.615   -5.409  1.00 39.15 A
     ATOM   1441   N    THR A 255      72.805  36.919   -6.885  1.00 44.09 A
     ATOM   1442   CA   THR A 255      71.959  37.594   -7.865  1.00 47.95 A
     ATOM   1443   CB   THR A 255      72.591  37.544   -9.276  1.00 48.10 A
20   ATOM   1444   OG1  THR A 255      73.924  38.072   -9.227  1.00 48.96 A
     ATOM   1445   CG2  THR A 255      71.768  38.376  -10.253  1.00 50.10 A
     ATOM   1446   C    THR A 255      70.538  37.032   -7.954  1.00 49.95 A
     ATOM   1447   O    THR A 255      69.631  37.537   -7.300  1.00 51.66 A
     ATOM   1448   N    GLU A 256      70.344  35.994   -8.764  1.00 52.84 A
25   ATOM   1449   CA   GLU A 256      69.018  35.395   -8.939  1.00 55.77 A
     ATOM   1450   CB   GLU A 256      69.036  34.342  -10.061  1.00 55.24 A
     ATOM   1451   CG   GLU A 256      70.360  34.171  -10.790  0.00 55.40 A
     ATOM   1452   CD   GLU A 256      70.699  35.348  -11.681  0.00 55.34 A
     ATOM   1453   OE1  GLU A 256      69.831  35.760  -12.480  0.00 55.36 A
30   ATOM   1454   OE2  GLU A 256      71.837  35.852  -11.593  0.00 55.36 A
     ATOM   1455   C    GLU A 256      68.451  34.743   -7.677  1.00 57.04 A
     ATOM   1456   O    GLU A 256      67.396  34.107   -7.732  1.00 56.82 A
     ATOM   1457   N    LYS A 257      69.137  34.911   -6.549  1.00 58.87 A
     ATOM   1458   CA   LYS A 257      68.711  34.308   -5.286  1.00 60.38 A
35   ATOM   1459   CB   LYS A 257      67.607  35.151   -4.623  1.00 60.84 A
     ATOM   1460   CG   LYS A 257      66.327  35.322   -5.430  0.00 60.71 A
     ATOM   1461   CD   LYS A 257      65.352  36.261   -4.731  0.00 60.78 A
     ATOM   1462   CE   LYS A 257      64.943  35.734   -3.363  0.00 60.77 A
     ATOM   1463   NZ   LYS A 257      63.992  36.650   -2.674  0.00 60.78 A
40   ATOM   1464   C    LYS A 257      68.227  32.878   -5.546  1.00 61.40 A
     ATOM   1465   O    LYS A 257      67.046  32.565   -5.389  1.00 61.84 A
     ATOM   1466   N    SER A 258      69.160  32.020   -5.958  1.00 61.26 A
     ATOM   1467   CA   SER A 258      68.865  30.622   -6.271  1.00 61.31 A
     ATOM   1468   CB   SER A 258      68.105  30.548   -7.605  1.00 62.95 A
45   ATOM   1469   OG   SER A 258      68.707  31.374   -8.596  1.00 63.22 A
     ATOM   1470   C    SER A 258      70.149  29.771   -6.334  1.00 60.39 A
     ATOM   1471   O    SER A 258      71.257  30.312   -6.329  1.00 60.58 A
     ATOM   1472   N    ALA A 259      70.001  28.447   -6.393  1.00 57.62 A
     ATOM   1473   CA   ALA A 259      71.159  27.551   -6.441  1.00 54.75 A
50   ATOM   1474   CB   ALA A 259      71.670  27.289   -5.025  1.00 54.90 A
     ATOM   1475   C    ALA A 259      70.890  26.218   -7.147  1.00 52.13 A
     ATOM   1476   O    ALA A 259      69.759  25.726   -7.175  1.00 51.63 A
     ATOM   1477   N    CYS A 260      71.945  25.641   -7.712  1.00 48.49 A
     ATOM   1478   CA   CYS A 260      71.848  24.371   -8.417  1.00 44.82 A
55   ATOM   1479   CB   CYS A 260      71.499  24.596   -9.890  1.00 46.78 A
     ATOM   1480   SG   CYS A 260      72.731  25.549  -10.821  1.00 53.48 A
     ATOM   1481   C    CYS A 260      73.176  23.643   -8.310  1.00 41.48 A
     ATOM   1482   O    CYS A 260      74.085  24.090   -7.612  1.00 41.05 A
     ATOM   1483   N    LYS A 261      73.288  22.525   -9.012  1.00 37.76 A
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     ATOM   1484   CA   LYS A 261      74.503  21.729   -8.980  1.00 34.90 A
     ATOM   1485   CB   LYS A 261      74.394  20.587   -9.990  1.00 35.93 A
     ATOM   1486   CG   LYS A 261      73.239  19.644   -9.691  1.00 38.46 A
     ATOM   1487   CD   LYS A 261      73.239  18.430  -10.601  1.00 39.70 A
  5  ATOM   1488   CE   LYS A 261      72.117  17.474  -10.229  1.00 40.95 A
     ATOM   1489   NZ   LYS A 261      72.076  16.269  -11.110  1.00 41.64 A
     ATOM   1490   C    LYS A 261      75.751  22.556   -9.247  1.00 32.19 A
     ATOM   1491   O    LYS A 261      76.780  22.366   -8.595  1.00 30.08 A
     ATOM   1492   N    SER A 262      75.651  23.480  -10.200  1.00 30.41 A
 10  ATOM   1493   CA   SER A 262      76.771  24.337  -10.556  1.00 27.88 A
     ATOM   1494   CB   SER A 262      76.361  25.333  -11.643  1.00 29.04 A
     ATOM   1495   OG   SER A 262      76.398  24.732  -12.921  1.00 32.20 A
     ATOM   1496   C    SER A 262      77.325  25.095   -9.360  1.00 27.01 A
     ATOM   1497   O    SER A 262      78.515  25.403   -9.320  1.00 27.37 A
 15  ATOM   1498   N    SER A 263      76.469  25.406   -8.392  1.00 24.83 A
     ATOM   1499   CA   SER A 263      76.924  26.115   -7.201  1.00 26.29 A
     ATOM   1500   CB   SER A 263      75.758  26.354   -6.242  1.00 26.59 A
     ATOM   1501   OG   SER A 263      74.830  27.254   -6.832  1.00 30.68 A
     ATOM   1502   C    SER A 263      78.039  25.337   -6.506  1.00 25.15 A
 20  ATOM   1503   O    SER A 263      79.034  25.924   -6.078  1.00 25.38 A
     ATOM   1504   N    ASP A 264      77.884  24.019   -6.396  1.00 23.51 A
     ATOM   1505   CA   ASP A 264      78.930  23.215   -5.773  1.00 22.06 A
     ATOM   1506   CB   ASP A 264      78.500  21.754   -5.613  1.00 23.87 A
     ATOM   1507   CG   ASP A 264      77.378  21.577   -4.599  1.00 27.11 A
 25  ATOM   1508   OD1  ASP A 264      77.276  22.402   -3.662  1.00 25.60 A
     ATOM   1509   OD2  ASP A 264      76.612  20.599   -4.730  1.00 26.16 A
     ATOM   1510   C    ASP A 264      80.175  23.267   -6.642  1.00 20.62 A
     ATOM   1511   O    ASP A 264      81.289  23.339   -6.129  1.00 20.01 A
     ATOM   1512   N    LEU A 265      79.985  23.246   -7.959  1.00 18.87 A
 30  ATOM   1513   CA   LEU A 265      81.113  23.275   -8.876  1.00 20.02 A
     ATOM   1514   CB   LEU A 265      80.634  23.131  -10.322  1.00 19.94 A
     ATOM   1515   CG   LEU A 265      80.037  21.763  -10.672  1.00 21.08 A
     ATOM   1516   CD1  LEU A 265      79.580  21.771  -12.122  1.00 22.16 A
     ATOM   1517   CD2  LEU A 265      81.077  20.659  -10.449  1.00 16.76 A
 35  ATOM   1518   C    LEU A 265      81.910  24.552   -8.705  1.00 20.53 A
     ATOM   1519   O    LEU A 265      83.130  24.563   -8.881  1.00 21.94 A
     ATOM   1520   N    TRP A 266      81.221  25.633   -8.361  1.00 21.74 A
     ATOM   1521   CA   TRP A 266      81.897  26.899   -8.138  1.00 20.89 A
     ATOM   1522   CB   TRP A 266      80.879  28.031   -7.960  1.00 22.97 A
 40  ATOM   1523   CG   TRP A 266      81.477  29.309   -7.411  1.00 24.01 A
     ATOM   1524   CD2  TRP A 266      81.814  30.487   -8.152  1.00 23.31 A
     ATOM   1525   CE2  TRP A 266      82.391  31.404   -7.243  1.00 23.27 A
     ATOM   1526   CE3  TRP A 266      81.689  30.858   -9.497  1.00 24.79 A
     ATOM   1527   CD1  TRP A 266      81.850  29.555   -6.116  1.00 24.55 A
 45  ATOM   1528   NE1  TRP A 266      82.401  30.811   -6.009  1.00 23.65 A
     ATOM   1529   CZ2  TRP A 266      82.839  32.663   -7.636  1.00 22.89 A
     ATOM   1530   CZ3  TRP A 266      82.139  32.116   -9.887  1.00 23.30 A
     ATOM   1531   CH2  TRP A 266      82.705  33.000   -8.959  1.00 23.32 A
     ATOM   1532   C    TRP A 266      82.739  26.735   -6.877  1.00 20.30 A
 50  ATOM   1533   O    TRP A 266      83.913  27.102   -6.853  1.00 20.60 A
     ATOM   1534   N    ALA A 267      82.141  26.175   -5.832  1.00 18.06 A
     ATOM   1535   CA   ALA A 267      82.868  25.966   -4.584  1.00 18.46 A
     ATOM   1536   CB   ALA A 267      81.984  25.254   -3.561  1.00 17.96 A
     ATOM   1537   C    ALA A 267      84.112  25.132   -4.877  1.00 18.05 A
 55  ATOM   1538   O    ALA A 267      85.173  25.340   -4.287  1.00 17.35 A
     ATOM   1539   N    LEU A 268      83.982  24.190   -5.799  1.00 17.12 A
     ATOM   1540   CA   LEU A 268      85.118  23.355   -6.157  1.00 18.45 A
     ATOM   1541   CB   LEU A 268      84.703  22.326   -7.204  1.00 17.67 A
     ATOM   1542   CG   LEU A 268      85.809  21.436   -7.772  1.00 16.93 A
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ATOM	1543	CD1	LEU A 268	86.333	20.495	-6.704	1.00	17.10 A
ATOM	1544	CD2	LEU A 268	85.258	20.651	-8.953	1.00	13.46 A
ATOM	1545	C	LEU A 268	86.232	24.249	-6.705	1.00	19.64 A
ATOM	1546	O	LEU A 268	87.389	24.129	-6.306	1.00	18.99 A
ATOM	1547	N	GLY A 269	85.869	25.158	-7.606	1.00	19.16 A
ATOM	1548	CA	GLY A 269	86.854	26.057	-8.178	1.00	18.25 A
ATOM	1549	C	GLY A 269	87.604	26.804	-7.103	1.00	20.30 A
ATOM	1550	O	GLY A 269	88.825	26.960	-7.178	1.00	20.24 A
ATOM	1551	N	CYS A 270	86.874	27.266	-6.090	1.00	20.20 A
ATOM	1552	CA	CYS A 270	87.486	27.996	-4.986	1.00	20.73 A
ATOM	1553	CB	CYS A 270	86.418	28.523	-4.031	1.00	21.05 A
ATOM	1554	SG	CYS A 270	85.292	29.703	-4.752	1.00	23.98 A
ATOM	1555	C	CYS A 270	88.417	27.082	-4.206	1.00	20.77 A
ATOM	1556	O	CYS A 270	89.550	27.449	-3.878	1.00	22.00 A
ATOM	1557	N	ILE A 271	87.927	25.886	-3.907	1.00	19.32 A
ATOM	1558	CA	ILE A 271	88.704	24.921	-3.147	1.00	18.46 A
ATOM	1559	CB	ILE A 271	87.872	23.668	-2.861	1.00	15.71 A
ATOM	1560	CG2	ILE A 271	88.722	22.607	-2.182	1.00	16.51 A
ATOM	1561	CG1	ILE A 271	86.688	24.051	-1.974	1.00	14.97 A
ATOM	1562	CD1	ILE A 271	85.785	22.891	-1.639	1.00	17.80 A
ATOM	1563	C	ILE A 271	90.001	24.546	-3.856	1.00	19.30 A
ATOM	1564	O	ILE A 271	91.062	24.532	-3.242	1.00	21.30 A
ATOM	1565	N	ILE A 272	89.915	24.253	-5.147	1.00	20.07 A
ATOM	1566	CA	ILE A 272	91.094	23.894	-5.906	1.00	21.50 A
ATOM	1567	CB	ILE A 272	90.758	23.693	-7.385	1.00	22.57 A
ATOM	1568	CG2	ILE A 272	92.041	23.498	-8.184	1.00	21.91 A
ATOM	1569	CG1	ILE A 272	89.818	22.495	-7.542	1.00	23.57 A
ATOM	1570	CD1	ILE A 272	89.314	22.294	-8.949	1.00	24.20 A
ATOM	1571	C	ILE A 272	92.112	25.010	-5.794	1.00	22.90 A
ATOM	1572	O	ILE A 272	93.287	24.783	-5.507	1.00	21.82 A
ATOM	1573	N	TYR A 273	91.638	26.226	-6.028	1.00	24.81 A
ATOM	1574	CA	TYR A 273	92.478	27.400	-5.969	1.00	25.15 A
ATOM	1575	CB	TYR A 273	91.630	28.632	-6.255	1.00	26.04 A
ATOM	1576	CG	TYR A 273	92.385	29.931	-6.173	1.00	27.80 A
ATOM	1577	CD1	TYR A 273	92.715	30.500	-4.939	1.00	27.53 A
ATOM	1578	CE1	TYR A 273	93.405	31.708	-4.870	1.00	27.30 A
ATOM	1579	CD2	TYR A 273	92.765	30.602	-7.333	1.00	27.17 A
ATOM	1580	CE2	TYR A 273	93.448	31.804	-7.277	1.00	26.68 A
ATOM	1581	CZ	TYR A 273	93.766	32.355	-6.050	1.00	28.05 A
ATOM	1582	OH	TYR A 273	94.433	33.562	-6.018	1.00	30.80 A
ATOM	1583	C	TYR A 273	93.139	27.521	-4.599	1.00	26.05 A
ATOM	1584	O	TYR A 273	94.310	27.889	-4.489	1.00	24.45 A
ATOM	1585	N	GLN A 274	92.380	27.205	-3.556	1.00	25.95 A
ATOM	1586	CA	GLN A 274	92.896	27.299	-2.202	1.00	25.98 A
ATOM	1587	CB	GLN A 274	91.743	27.209	-1.199	1.00	25.56 A
ATOM	1588	CG	GLN A 274	92.169	27.422	0.233	1.00	25.42 A
ATOM	1589	CD	GLN A 274	90.990	27.571	1.161	1.00	28.69 A
ATOM	1590	OE1	GLN A 274	89.838	27.506	0.732	1.00	29.84 A
ATOM	1591	NE2	GLN A 274	91.267	27.774	2.445	1.00	29.83 A
ATOM	1592	C	GLN A 274	93.951	26.231	-1.915	1.00	25.08 A
ATOM	1593	O	GLN A 274	94.862	26.452	-1.120	1.00	24.38 A
ATOM	1594	N	LEU A 275	93.838	25.081	-2.567	1.00	24.42 A
ATOM	1595	CA	LEU A 275	94.813	24.006	-2.369	1.00	25.43 A
ATOM	1596	CB	LEU A 275	94.335	22.713	-3.035	1.00	22.95 A
ATOM	1597	CG	LEU A 275	93.193	21.959	-2.354	1.00	25.67 A
ATOM	1598	CD1	LEU A 275	92.817	20.702	-3.154	1.00	22.16 A
ATOM	1599	CD2	LEU A 275	93.633	21.580	-0.950	1.00	23.32 A
ATOM	1600	C	LEU A 275	96.171	24.376	-2.948	1.00	25.40 A
ATOM	1601	O	LEU A 275	97.212	24.071	-2.376	1.00	25.87 A

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     ATOM   1602   N    VAL A 276      96.153  25.039  -4.094  1.00 25.78 A
     ATOM   1603   CA   VAL A 276      97.384  25.419  -4.759  1.00 26.12 A
     ATOM   1604   CB   VAL A 276      97.170  25.522  -6.280  1.00 26.14 A
     ATOM   1605   CG1  VAL A 276      98.492  25.783  -6.962  1.00 24.46 A
  5  ATOM   1606   CG2  VAL A 276      96.531  24.248  -6.804  1.00 22.55 A
     ATOM   1607   C    VAL A 276      97.990  26.735  -4.275  1.00 27.83 A
     ATOM   1608   O    VAL A 276      99.210  26.849  -4.164  1.00 29.55 A
     ATOM   1609   N    ALA A 277      97.148  27.723  -3.990  1.00 26.88 A
     ATOM   1610   CA   ALA A 277      97.639  29.023  -3.549  1.00 26.50 A
 10  ATOM   1611   CB   ALA A 277      96.765  30.126  -4.122  1.00 24.49 A
     ATOM   1612   C    ALA A 277      97.740  29.175  -2.035  1.00 26.79 A
     ATOM   1613   O    ALA A 277      98.465  30.042  -1.548  1.00 28.26 A
     ATOM   1614   N    GLY A 278      97.020  28.343  -1.290  1.00 26.17 A
     ATOM   1615   CA   GLY A 278      97.074  28.430   0.159  1.00 24.63 A
 15  ATOM   1616   C    GLY A 278      95.971  29.272   0.780  1.00 25.52 A
     ATOM   1617   O    GLY A 278      95.793  29.259   1.998  1.00 27.25 A
     ATOM   1618   N    LEU A 279      95.229  29.998  -0.051  1.00 24.94 A
     ATOM   1619   CA   LEU A 279      94.130  30.849   0.408  1.00 25.58 A
     ATOM   1620   CB   LEU A 279      94.603  32.302   0.522  1.00 27.65 A
 20  ATOM   1621   CG   LEU A 279      95.748  32.631   1.470  1.00 29.35 A
     ATOM   1622   CD1  LEU A 279      96.365  33.958   1.075  1.00 30.47 A
     ATOM   1623   CD2  LEU A 279      95.232  32.671   2.892  1.00 29.70 A
     ATOM   1624   C    LEU A 279      92.987  30.822  -0.605  1.00 25.19 A
     ATOM   1625   O    LEU A 279      93.201  30.525  -1.781  1.00 25.34 A
 25  ATOM   1626   N    PRO A 280      91.755  31.126  -0.165  1.00 23.60 A
     ATOM   1627   CD   PRO A 280      91.306  31.357   1.216  1.00 22.97 A
     ATOM   1628   CA   PRO A 280      90.628  31.133  -1.103  1.00 23.81 A
     ATOM   1629   CB   PRO A 280      89.417  31.338  -0.195  1.00 25.19 A
     ATOM   1630   CG   PRO A 280      89.982  32.041   1.008  1.00 25.48 A
 30  ATOM   1631   C    PRO A 280      90.855  32.295  -2.083  1.00 26.26 A
     ATOM   1632   O    PRO A 280      91.632  33.207  -1.792  1.00 25.42 A
     ATOM   1633   N    PRO A 281      90.178  32.284  -3.243  1.00 26.49 A
     ATOM   1634   CD   PRO A 281      89.182  31.285  -3.651  1.00 27.13 A
     ATOM   1635   CA   PRO A 281      90.307  33.316  -4.281  1.00 27.25 A
 35  ATOM   1636   CB   PRO A 281      89.522  32.727  -5.463  1.00 26.75 A
     ATOM   1637   CG   PRO A 281      89.354  31.291  -5.136  1.00 25.29 A
     ATOM   1638   C    PRO A 281      89.817  34.724  -3.954  1.00 27.30 A
     ATOM   1639   O    PRO A 281      90.497  35.709  -4.238  1.00 27.67 A
     ATOM   1640   N    PHE A 282      88.623  34.817  -3.388  1.00 27.79 A
 40  ATOM   1641   CA   PHE A 282      88.034  36.107  -3.066  1.00 28.37 A
     ATOM   1642   CB   PHE A 282      86.563  36.086  -3.467  1.00 27.77 A
     ATOM   1643   CG   PHE A 282      86.335  35.557  -4.857  1.00 29.06 A
     ATOM   1644   CD1  PHE A 282      86.454  36.392  -5.965  1.00 28.74 A
     ATOM   1645   CD2  PHE A 282      86.077  34.207  -5.063  1.00 25.80 A
 45  ATOM   1646   CE1  PHE A 282      86.324  35.887  -7.255  1.00 28.50 A
     ATOM   1647   CE2  PHE A 282      85.947  33.695  -6.346  1.00 26.04 A
     ATOM   1648   CZ   PHE A 282      86.071  34.535  -7.444  1.00 28.02 A
     ATOM   1649   C    PHE A 282      88.184  36.426  -1.589  1.00 29.95 A
     ATOM   1650   O    PHE A 282      87.600  35.763  -0.741  1.00 32.95 A
 50  ATOM   1651   N    ARG A 283      88.977  37.445  -1.285  1.00 32.36 A
     ATOM   1652   CA   ARG A 283      89.215  37.843   0.100  1.00 33.06 A
     ATOM   1653   CB   ARG A 283      90.622  37.432   0.520  1.00 33.69 A
     ATOM   1654   CG   ARG A 283      90.990  36.006   0.151  1.00 36.29 A
     ATOM   1655   CD   ARG A 283      92.341  35.635   0.727  1.00 38.81 A
 55  ATOM   1656   NE   ARG A 283      93.415  36.423   0.133  1.00 41.73 A
     ATOM   1657   CZ   ARG A 283      93.783  36.338  -1.142  1.00 44.14 A
     ATOM   1658   NH1  ARG A 283      93.162  35.497  -1.958  1.00 45.19 A
     ATOM   1659   NH2  ARG A 283      94.772  37.094  -1.604  1.00 44.57 A
     ATOM   1660   C    ARG A 283      89.065  39.353   0.267  1.00 32.44 A
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	ATOM	1661	O	ARG A 283	89.429	40.118	-0.624	1.00	31.91	A
	ATOM	1662	N	ALA A 284	88.527	39.777	1.406	1.00	33.21	A
	ATOM	1663	CA	ALA A 284	88.348	41.199	1.682	1.00	32.82	A
	ATOM	1664	CB	ALA A 284	87.265	41.777	0.782	1.00	32.40	A
5	ATOM	1665	C	ALA A 284	88.004	41.445	3.147	1.00	32.98	A
	ATOM	1666	O	ALA A 284	87.779	40.502	3.913	1.00	32.53	A
	ATOM	1667	N	GLY A 285	87.961	42.723	3.520	1.00	32.60	A
	ATOM	1668	CA	GLY A 285	87.666	43.112	4.887	1.00	30.00	A
	ATOM	1669	C	GLY A 285	86.355	42.637	5.486	1.00	29.37	A
10	ATOM	1670	O	GLY A 285	86.287	42.366	6.685	1.00	29.35	A
	ATOM	1671	N	ASN A 286	85.302	42.547	4.685	1.00	28.99	A
	ATOM	1672	CA	ASN A 286	84.024	42.097	5.226	1.00	29.58	A
	ATOM	1673	CB	ASN A 286	83.238	43.281	5.801	1.00	29.54	A
	ATOM	1674	CG	ASN A 286	82.958	44.356	4.764	1.00	29.60	A
15	ATOM	1675	OD1	ASN A 286	82.350	44.092	3.720	1.00	26.48	A
	ATOM	1676	ND2	ASN A 286	83.400	45.575	5.049	1.00	25.96	A
	ATOM	1677	C	ASN A 286	83.196	41.378	4.182	1.00	30.16	A
	ATOM	1678	O	ASN A 286	83.551	41.357	3.004	1.00	31.70	A
	ATOM	1679	N	GLU A 287	82.084	40.796	4.613	1.00	31.14	A
20	ATOM	1680	CA	GLU A 287	81.225	40.051	3.699	1.00	32.53	A
	ATOM	1681	CB	GLU A 287	79.943	39.600	4.397	1.00	35.66	A
	ATOM	1682	CG	GLU A 287	80.168	38.813	5.666	1.00	43.05	A
	ATOM	1683	CD	GLU A 287	79.138	37.707	5.856	1.00	47.79	A
	ATOM	1684	OE1	GLU A 287	77.933	37.959	5.616	1.00	49.01	A
25	ATOM	1685	OE2	GLU A 287	79.539	36.588	6.256	1.00	48.82	A
	ATOM	1686	C	GLU A 287	80.853	40.837	2.457	1.00	30.19	A
	ATOM	1687	O	GLU A 287	80.986	40.332	1.343	1.00	30.33	A
	ATOM	1688	N	TYR A 288	80.385	42.066	2.653	1.00	29.13	A
	ATOM	1689	CA	TYR A 288	79.972	42.922	1.541	1.00	27.98	A
30	ATOM	1690	CB	TYR A 288	79.573	44.320	2.034	1.00	26.59	A
	ATOM	1691	CG	TYR A 288	79.080	45.217	0.917	1.00	26.43	A
	ATOM	1692	CD1	TYR A 288	77.799	45.060	0.385	1.00	28.06	A
	ATOM	1693	CE1	TYR A 288	77.350	45.854	-0.675	1.00	28.72	A
	ATOM	1694	CD2	TYR A 288	79.905	46.196	0.363	1.00	27.24	A
35	ATOM	1695	CE2	TYR A 288	79.470	46.994	-0.697	1.00	28.55	A
	ATOM	1696	CZ	TYR A 288	78.192	46.814	-1.211	1.00	29.91	A
	ATOM	1697	OH	TYR A 288	77.765	47.571	-2.275	1.00	30.53	A
	ATOM	1698	C	TYR A 288	81.057	43.068	0.487	1.00	25.84	A
	ATOM	1699	O	TYR A 288	80.790	42.940	-0.701	1.00	27.88	A
40	ATOM	1700	N	LEU A 289	82.279	43.344	0.919	1.00	24.24	A
	ATOM	1701	CA	LEU A 289	83.382	43.495	-0.018	1.00	26.60	A
	ATOM	1702	CB	LEU A 289	84.662	43.919	0.713	1.00	25.15	A
	ATOM	1703	CG	LEU A 289	85.005	45.411	0.817	1.00	27.82	A
	ATOM	1704	CD1	LEU A 289	83.830	46.277	0.354	1.00	27.32	A
45	ATOM	1705	CD2	LEU A 289	85.404	45.727	2.251	1.00	25.62	A
	ATOM	1706	C	LEU A 289	83.622	42.184	-0.736	1.00	27.45	A
	ATOM	1707	O	LEU A 289	83.901	42.157	-1.933	1.00	30.18	A
	ATOM	1708	N	ILE A 290	83.520	41.093	0.009	1.00	28.11	A
	ATOM	1709	CA	ILE A 290	83.726	39.770	-0.551	1.00	28.84	A
50	ATOM	1710	CB	ILE A 290	83.565	38.710	0.545	1.00	29.67	A
	ATOM	1711	CG2	ILE A 290	83.450	37.331	-0.071	1.00	31.47	A
	ATOM	1712	CG1	ILE A 290	84.756	38.802	1.504	1.00	29.26	A
	ATOM	1713	CD1	ILE A 290	84.604	37.995	2.779	1.00	27.48	A
	ATOM	1714	C	ILE A 290	82.727	39.530	-1.676	1.00	27.99	A
55	ATOM	1715	O	ILE A 290	83.090	39.110	-2.775	1.00	26.63	A
	ATOM	1716	N	PHE A 291	81.464	39.824	-1.406	1.00	28.54	A
	ATOM	1717	CA	PHE A 291	80.432	39.638	-2.407	1.00	27.14	A
	ATOM	1718	CB	PHE A 291	79.066	39.945	-1.807	1.00	28.37	A
	ATOM	1719	CG	PHE A 291	78.674	39.024	-0.688	1.00	30.37	A

	ATOM	1720	CD1	PHE	A	291	79.283	37.778	-0.543	1.00	30.07	A
	ATOM	1721	CD2	PHE	A	291	77.658	39.377	0.194	1.00	29.74	A
	ATOM	1722	CE1	PHE	A	291	78.885	36.897	0.463	1.00	32.11	A
	ATOM	1723	CE2	PHE	A	291	77.253	38.502	1.202	1.00	32.76	A
5	ATOM	1724	CZ	PHE	A	291	77.867	37.259	1.336	1.00	32.01	A
	ATOM	1725	C	PHE	A	291	80.690	40.525	-3.618	1.00	27.79	A
	ATOM	1726	O	PHE	A	291	80.434	40.124	-4.755	1.00	26.52	A
	ATOM	1727	N	GLN	A	292	81.200	41.730	-3.384	1.00	27.05	A
	ATOM	1728	CA	GLN	A	292	81.478	42.613	-4.503	1.00	27.48	A
10	ATOM	1729	CB	GLN	A	292	82.072	43.945	-4.037	1.00	27.80	A
	ATOM	1730	CG	GLN	A	292	81.041	44.984	-3.651	1.00	30.50	A
	ATOM	1731	CD	GLN	A	292	81.630	46.381	-3.565	1.00	31.30	A
	ATOM	1732	OE1	GLN	A	292	82.519	46.644	-2.762	1.00	33.17	A
	ATOM	1733	NE2	GLN	A	292	81.133	47.284	-4.399	1.00	32.86	A
15	ATOM	1734	C	GLN	A	292	82.442	41.934	-5.460	1.00	26.82	A
	ATOM	1735	O	GLN	A	292	82.186	41.883	-6.664	1.00	28.03	A
	ATOM	1736	N	LYS	A	293	83.539	41.402	-4.924	1.00	24.08	A
	ATOM	1737	CA	LYS	A	293	84.542	40.739	-5.751	1.00	24.43	A
	ATOM	1738	CB	LYS	A	293	85.752	40.368	-4.901	1.00	26.19	A
20	ATOM	1739	CG	LYS	A	293	86.456	41.580	-4.319	1.00	28.24	A
	ATOM	1740	CD	LYS	A	293	87.750	41.213	-3.608	1.00	30.60	A
	ATOM	1741	CE	LYS	A	293	88.555	42.468	-3.273	1.00	32.23	A
	ATOM	1742	NZ	LYS	A	293	89.849	42.170	-2.591	1.00	32.86	A
	ATOM	1743	C	LYS	A	293	84.008	39.500	-6.472	1.00	25.06	A
25	ATOM	1744	O	LYS	A	293	84.350	39.236	-7.628	1.00	24.96	A
	ATOM	1745	N	ILE	A	294	83.163	38.740	-5.793	1.00	24.33	A
	ATOM	1746	CA	ILE	A	294	82.593	37.552	-6.399	1.00	24.46	A
	ATOM	1747	CB	ILE	A	294	81.725	36.800	-5.385	1.00	22.52	A
	ATOM	1748	CG2	ILE	A	294	80.837	35.783	-6.093	1.00	23.14	A
30	ATOM	1749	CG1	ILE	A	294	82.632	36.141	-4.345	1.00	21.54	A
	ATOM	1750	CD1	ILE	A	294	81.892	35.535	-3.175	1.00	19.38	A
	ATOM	1751	C	ILE	A	294	81.761	37.885	-7.639	1.00	27.01	A
	ATOM	1752	O	ILE	A	294	81.967	37.303	-8.704	1.00	23.93	A
	ATOM	1753	N	ILE	A	295	80.830	38.828	-7.513	1.00	29.79	A
35	ATOM	1754	CA	ILE	A	295	79.983	39.168	-8.653	1.00	32.98	A
	ATOM	1755	CB	ILE	A	295	78.767	40.004	-8.228	1.00	33.96	A
	ATOM	1756	CG2	ILE	A	295	77.980	39.246	-7.174	1.00	36.23	A
	ATOM	1757	CG1	ILE	A	295	79.216	41.358	-7.682	1.00	35.79	A
	ATOM	1758	CD1	ILE	A	295	78.062	42.266	-7.300	1.00	37.79	A
40	ATOM	1759	C	ILE	A	295	80.729	39.898	-9.757	1.00	33.17	A
	ATOM	1760	O	ILE	A	295	80.212	40.066	-10.862	1.00	34.06	A
	ATOM	1761	N	LYS	A	296	81.946	40.333	-9.462	1.00	33.65	A
	ATOM	1762	CA	LYS	A	296	82.747	41.012	-10.468	1.00	34.81	A
	ATOM	1763	CB	LYS	A	296	83.353	42.293	-9.895	1.00	38.05	A
45	ATOM	1764	CG	LYS	A	296	82.353	43.427	-9.714	1.00	40.12	A
	ATOM	1765	CD	LYS	A	296	83.070	44.736	-9.401	1.00	44.01	A
	ATOM	1766	CE	LYS	A	296	82.191	45.939	-9.731	1.00	46.66	A
	ATOM	1767	NZ	LYS	A	296	82.972	47.209	-9.833	1.00	47.40	A
	ATOM	1768	C	LYS	A	296	83.851	40.078	-10.945	1.00	34.15	A
50	ATOM	1769	O	LYS	A	296	84.622	40.415	-11.847	1.00	33.48	A
	ATOM	1770	N	LEU	A	297	83.907	38.897	-10.333	1.00	33.82	A
	ATOM	1771	CA	LEU	A	297	84.904	37.890	-10.663	1.00	32.06	A
	ATOM	1772	CB	LEU	A	297	84.716	37.418	-12.110	1.00	32.43	A
	ATOM	1773	CG	LEU	A	297	85.452	36.144	-12.538	1.00	33.09	A
55	ATOM	1774	CD1	LEU	A	297	84.959	34.966	-11.697	1.00	31.88	A
	ATOM	1775	CD2	LEU	A	297	85.206	35.875	-14.025	1.00	32.51	A
	ATOM	1776	C	LEU	A	297	86.275	38.515	-10.476	1.00	32.23	A
	ATOM	1777	O	LEU	A	297	87.180	38.321	-11.278	1.00	32.08	A
	ATOM	1778	N	GLU	A	298	86.424	39.267	-9.395	1.00	33.56	A

	ATOM	1779	CA	GLU	A	298	87.682	39.936	-9.110	1.00	35.66 A
	ATOM	1780	CB	GLU	A	298	87.405	41.274	-8.428	1.00	38.03 A
	ATOM	1781	CG	GLU	A	298	88.641	42.125	-8.236	1.00	42.97 A
	ATOM	1782	CD	GLU	A	298	88.383	43.313	-7.338	1.00	46.19 A
5	ATOM	1783	OE1	GLU	A	298	87.412	44.055	-7.602	1.00	48.41 A
	ATOM	1784	OE2	GLU	A	298	89.153	43.504	-6.369	1.00	48.44 A
	ATOM	1785	C	GLU	A	298	88.644	39.117	-8.245	1.00	34.35 A
	ATOM	1786	O	GLU	A	298	88.508	39.065	-7.021	1.00	35.64 A
	ATOM	1787	N	TYR	A	299	89.611	38.478	-8.894	1.00	32.46 A
10	ATOM	1788	CA	TYR	A	299	90.624	37.678	-8.208	1.00	30.71 A
	ATOM	1789	CB	TYR	A	299	90.031	36.367	-7.672	1.00	26.01 A
	ATOM	1790	CG	TYR	A	299	89.874	35.300	-8.730	1.00	26.77 A
	ATOM	1791	CD1	TYR	A	299	88.871	35.390	-9.699	1.00	26.60 A
	ATOM	1792	CE1	TYR	A	299	88.768	34.448	-10.724	1.00	26.10 A
15	ATOM	1793	CD2	TYR	A	299	90.770	34.236	-8.807	1.00	22.56 A
	ATOM	1794	CE2	TYR	A	299	90.677	33.291	-9.822	1.00	24.59 A
	ATOM	1795	CZ	TYR	A	299	89.674	33.400	-10.781	1.00	26.34 A
	ATOM	1796	OH	TYR	A	299	89.578	32.463	-11.791	1.00	22.44 A
	ATOM	1797	C	TYR	A	299	91.720	37.374	-9.229	1.00	30.95 A
20	ATOM	1798	O	TYR	A	299	91.528	37.575	-10.425	1.00	28.80 A
	ATOM	1799	N	ASP	A	300	92.865	36.891	-8.764	1.00	33.38 A
	ATOM	1800	CA	ASP	A	300	93.954	36.582	-9.680	1.00	36.47 A
	ATOM	1801	CB	ASP	A	300	94.782	37.845	-9.931	1.00	42.34 A
	ATOM	1802	CG	ASP	A	300	95.014	38.644	-8.666	1.00	46.20 A
25	ATOM	1803	OD1	ASP	A	300	95.607	38.085	-7.719	1.00	49.27 A
	ATOM	1804	OD2	ASP	A	300	94.599	39.826	-8.615	1.00	49.25 A
	ATOM	1805	C	ASP	A	300	94.848	35.444	-9.188	1.00	35.61 A
	ATOM	1806	O	ASP	A	300	94.857	35.113	-8.002	1.00	34.48 A
	ATOM	1807	N	PHE	A	301	95.602	34.854	-10.111	1.00	35.02 A
30	ATOM	1808	CA	PHE	A	301	96.477	33.737	-9.781	1.00	35.94 A
	ATOM	1809	CB	PHE	A	301	96.501	32.700	-10.909	1.00	34.28 A
	ATOM	1810	CG	PHE	A	301	95.156	32.167	-11.301	1.00	32.40 A
	ATOM	1811	CD1	PHE	A	301	94.358	32.856	-12.205	1.00	30.50 A
	ATOM	1812	CD2	PHE	A	301	94.708	30.947	-10.803	1.00	31.83 A
35	ATOM	1813	CE1	PHE	A	301	93.131	32.333	-12.617	1.00	31.48 A
	ATOM	1814	CE2	PHE	A	301	93.484	30.416	-11.206	1.00	31.37 A
	ATOM	1815	CZ	PHE	A	301	92.695	31.109	-12.114	1.00	31.44 A
	ATOM	1816	C	PHE	A	301	97.916	34.134	-9.524	1.00	38.11 A
	ATOM	1817	O	PHE	A	301	98.458	35.010	-10.196	1.00	39.06 A
40	ATOM	1818	N	PRO	A	302	98.559	33.498	-8.535	1.00	40.47 A
	ATOM	1819	CD	PRO	A	302	98.053	32.554	-7.524	1.00	41.16 A
	ATOM	1820	CA	PRO	A	302	99.955	33.843	-8.277	1.00	41.88 A
	ATOM	1821	CB	PRO	A	302	100.248	33.131	-6.963	1.00	42.01 A
	ATOM	1822	CG	PRO	A	302	99.328	31.947	-7.001	1.00	41.79 A
45	ATOM	1823	C	PRO	A	302	100.721	33.265	-9.458	1.00	44.54 A
	ATOM	1824	O	PRO	A	302	100.263	32.305	-10.082	1.00	44.30 A
	ATOM	1825	N	GLU	A	303	101.874	33.843	-9.770	1.00	47.35 A
	ATOM	1826	CA	GLU	A	303	102.667	33.395	-10.912	1.00	50.51 A
	ATOM	1827	CB	GLU	A	303	103.859	34.337	-11.105	1.00	53.23 A
50	ATOM	1828	CG	GLU	A	303	104.431	34.376	-12.520	1.00	56.85 A
	ATOM	1829	CD	GLU	A	303	103.976	35.600	-13.314	1.00	59.62 A
	ATOM	1830	OE1	GLU	A	303	104.508	35.819	-14.424	1.00	60.43 A
	ATOM	1831	OE2	GLU	A	303	103.088	36.341	-12.834	1.00	60.45 A
	ATOM	1832	C	GLU	A	303	103.173	31.950	-10.829	1.00	50.70 A
55	ATOM	1833	O	GLU	A	303	103.692	31.423	-11.815	1.00	52.21 A
	ATOM	1834	N	ALA	A	304	103.018	31.309	-9.672	1.00	49.61 A
	ATOM	1835	CA	ALA	A	304	103.495	29.933	-9.488	1.00	49.10 A
	ATOM	1836	CB	ALA	A	304	104.077	29.779	-8.082	1.00	48.82 A
	ATOM	1837	C	ALA	A	304	102.422	28.869	-9.713	1.00	47.90 A

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     ATOM  1838  O    ALA A 304   102.703  27.666   -9.719  1.00 49.41 A
     ATOM  1839  N    PHE A 305   101.192  29.322   -9.899  1.00 44.69 A
     ATOM  1840  CA   PHE A 305   100.053  28.440  -10.089  1.00 40.05 A
     ATOM  1841  CB   PHE A 305    98.809  29.301  -10.299  1.00 39.69 A
  5  ATOM  1842  CG   PHE A 305    97.568  28.729   -9.697  1.00 37.21 A
     ATOM  1843  CD1  PHE A 305    96.824  27.775  -10.379  1.00 35.36 A
     ATOM  1844  CD2  PHE A 305    97.133  29.157   -8.445  1.00 37.52 A
     ATOM  1845  CE1  PHE A 305    95.658  27.255   -9.825  1.00 34.59 A
     ATOM  1846  CE2  PHE A 305    95.963  28.641   -7.880  1.00 37.01 A
 10  ATOM  1847  CZ   PHE A 305    95.226  27.688   -8.575  1.00 35.13 A
     ATOM  1848  C    PHE A 305   100.197  27.435  -11.230  1.00 37.65 A
     ATOM  1849  O    PHE A 305   100.364  27.814  -12.389  1.00 36.24 A
     ATOM  1850  N    PHE A 306   100.120  26.150  -10.892  1.00 35.64 A
     ATOM  1851  CA   PHE A 306   100.219  25.081  -11.884  1.00 32.40 A
 15  ATOM  1852  CB   PHE A 306    99.781  23.749  -11.268  1.00 29.92 A
     ATOM  1853  CG   PHE A 306   100.412  23.456   -9.926  1.00 28.24 A
     ATOM  1854  CD1  PHE A 306   101.796  23.457   -9.770  1.00 27.43 A
     ATOM  1855  CD2  PHE A 306    99.617  23.173   -8.816  1.00 28.59 A
     ATOM  1856  CE1  PHE A 306   102.380  23.181   -8.526  1.00 29.55 A
 20  ATOM  1857  CE2  PHE A 306   100.188  22.895   -7.566  1.00 29.06 A
     ATOM  1858  CZ   PHE A 306   101.575  22.901   -7.422  1.00 29.51 A
     ATOM  1859  C    PHE A 306    99.296  25.452  -13.047  1.00 32.76 A
     ATOM  1860  O    PHE A 306    98.087  25.625  -12.861  1.00 34.51 A
     ATOM  1861  N    PRO A 307    99.856  25.587  -14.262  1.00 31.43 A
 25  ATOM  1862  CD   PRO A 307   101.272  25.327  -14.569  1.00 30.74 A
     ATOM  1863  CA   PRO A 307    99.128  25.947  -15.485  1.00 29.54 A
     ATOM  1864  CB   PRO A 307   100.158  25.700  -16.579  1.00 29.48 A
     ATOM  1865  CG   PRO A 307   101.437  26.032  -15.895  1.00 30.81 A
     ATOM  1866  C    PRO A 307    97.826  25.193  -15.743  1.00 29.74 A
 30  ATOM  1867  O    PRO A 307    96.795  25.804  -16.022  1.00 31.08 A
     ATOM  1868  N    LYS A 308    97.867  23.870  -15.660  1.00 28.47 A
     ATOM  1869  CA   LYS A 308    96.672  23.086  -15.904  1.00 27.92 A
     ATOM  1870  CB   LYS A 308    97.044  21.619  -16.114  1.00 28.70 A
     ATOM  1871  CG   LYS A 308    97.696  21.405  -17.460  1.00 30.04 A
 35  ATOM  1872  CD   LYS A 308    98.310  20.029  -17.595  1.00 33.76 A
     ATOM  1873  CE   LYS A 308    99.106  19.926  -18.888  1.00 33.22 A
     ATOM  1874  NZ   LYS A 308    99.897  18.663  -18.948  1.00 36.67 A
     ATOM  1875  C    LYS A 308    95.632  23.247  -14.800  1.00 26.85 A
     ATOM  1876  O    LYS A 308    94.433  23.170  -15.060  1.00 25.34 A
 40  ATOM  1877  N    ALA A 309    96.084  23.480  -13.574  1.00 24.70 A
     ATOM  1878  CA   ALA A 309    95.145  23.685  -12.486  1.00 24.41 A
     ATOM  1879  CB   ALA A 309    95.855  23.652  -11.146  1.00 22.65 A
     ATOM  1880  C    ALA A 309    94.523  25.051  -12.712  1.00 26.56 A
     ATOM  1881  O    ALA A 309    93.327  25.238  -12.493  1.00 28.91 A
 45  ATOM  1882  N    ARG A 310    95.335  26.011  -13.149  1.00 26.94 A
     ATOM  1883  CA   ARG A 310    94.830  27.354  -13.402  1.00 27.56 A
     ATOM  1884  CB   ARG A 310    95.961  28.289  -13.864  1.00 28.69 A
     ATOM  1885  CG   ARG A 310    95.438  29.584  -14.480  1.00 31.42 A
     ATOM  1886  CD   ARG A 310    96.482  30.676  -14.634  1.00 33.72 A
 50  ATOM  1887  NE   ARG A 310    95.881  31.868  -15.233  1.00 37.73 A
     ATOM  1888  CZ   ARG A 310    96.412  33.090  -15.198  1.00 38.44 A
     ATOM  1889  NH1  ARG A 310    97.572  33.297  -14.588  1.00 37.72 A
     ATOM  1890  NH2  ARG A 310    95.775  34.108  -15.767  1.00 37.74 A
     ATOM  1891  C    ARG A 310    93.743  27.280  -14.473  1.00 26.84 A
 55  ATOM  1892  O    ARG A 310    92.678  27.880  -14.344  1.00 26.39 A
     ATOM  1893  N    ASP A 311    94.019  26.524  -15.527  1.00 26.91 A
     ATOM  1894  CA   ASP A 311    93.069  26.369  -16.615  1.00 28.21 A
     ATOM  1895  CB   ASP A 311    93.682  25.504  -17.713  1.00 30.32 A
     ATOM  1896  CG   ASP A 311    92.850  25.494  -18.972  1.00 35.68 A
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     ATOM   1897   OD1 ASP A 311      91.894  24.691 -19.040  1.00 38.27 A
     ATOM   1898   OD2 ASP A 311      93.145  26.302 -19.888  1.00 37.07 A
     ATOM   1899   C   ASP A 311      91.769  25.748 -16.108  1.00 27.22 A
     ATOM   1900   O   ASP A 311      90.678  26.205 -16.449  1.00 29.64 A
  5  ATOM   1901   N   LEU A 312      91.886  24.715 -15.285  1.00 24.32 A
     ATOM   1902   CA  LEU A 312      90.708  24.062 -14.728  1.00 23.48 A
     ATOM   1903   CB  LEU A 312      91.118  22.838 -13.892  1.00 21.65 A
     ATOM   1904   CG  LEU A 312      90.067  22.228 -12.945  1.00 21.40 A
     ATOM   1905   CD1 LEU A 312      88.789  21.917 -13.694  1.00 16.90 A
 10  ATOM   1906   CD2 LEU A 312      90.629  20.960 -12.294  1.00 19.67 A
     ATOM   1907   C   LEU A 312      89.899  25.039 -13.871  1.00 22.73 A
     ATOM   1908   O   LEU A 312      88.684  25.141 -14.021  1.00 22.02 A
     ATOM   1909   N   VAL A 313      90.574  25.754 -12.972  1.00 22.12 A
     ATOM   1910   CA  VAL A 313      89.897  26.715 -12.108  1.00 21.16 A
 15  ATOM   1911   CB  VAL A 313      90.893  27.440 -11.167  1.00 23.49 A
     ATOM   1912   CG1 VAL A 313      90.221  28.679 -10.534  1.00 20.45 A
     ATOM   1913   CG2 VAL A 313      91.369  26.487 -10.080  1.00 21.63 A
     ATOM   1914   C   VAL A 313      89.161  27.771 -12.920  1.00 22.93 A
     ATOM   1915   O   VAL A 313      88.051  28.168 -12.566  1.00 21.46 A
 20  ATOM   1916   N   GLU A 314      89.784  28.235 -14.001  1.00 23.15 A
     ATOM   1917   CA  GLU A 314      89.156  29.252 -14.832  1.00 25.95 A
     ATOM   1918   CB  GLU A 314      90.127  29.762 -15.900  1.00 28.61 A
     ATOM   1919   CG  GLU A 314      91.319  30.523 -15.350  1.00 32.73 A
     ATOM   1920   CD  GLU A 314      92.205  31.059 -16.453  1.00 35.94 A
 25  ATOM   1921   OE1 GLU A 314      92.188  30.467 -17.554  1.00 40.67 A
     ATOM   1922   OE2 GLU A 314      92.923  32.059 -16.225  1.00 37.73 A
     ATOM   1923   C   GLU A 314      87.891  28.742 -15.505  1.00 24.64 A
     ATOM   1924   O   GLU A 314      87.030  29.528 -15.892  1.00 24.01 A
     ATOM   1925   N   LYS A 315      87.775  27.428 -15.654  1.00 23.67 A
 30  ATOM   1926   CA  LYS A 315      86.588  26.874 -16.278  1.00 23.15 A
     ATOM   1927   CB  LYS A 315      86.937  25.594 -17.042  1.00 24.76 A
     ATOM   1928   CG  LYS A 315      87.784  25.845 -18.299  1.00 22.90 A
     ATOM   1929   CD  LYS A 315      88.223  24.541 -18.929  1.00 23.63 A
     ATOM   1930   CE  LYS A 315      89.079  24.772 -20.153  1.00 23.20 A
 35  ATOM   1931   NZ  LYS A 315      88.332  25.582 -21.142  1.00 29.09 A
     ATOM   1932   C   LYS A 315      85.509  26.600 -15.244  1.00 23.08 A
     ATOM   1933   O   LYS A 315      84.386  26.250 -15.596  1.00 23.63 A
     ATOM   1934   N   LEU A 316      85.852  26.773 -13.969  1.00 21.74 A
     ATOM   1935   CA  LEU A 316      84.910  26.547 -12.876  1.00 21.89 A
 40  ATOM   1936   CB  LEU A 316      85.569  25.738 -11.760  1.00 20.54 A
     ATOM   1937   CG  LEU A 316      85.841  24.269 -12.090  1.00 20.69 A
     ATOM   1938   CD1 LEU A 316      86.600  23.611 -10.947  1.00 17.08 A
     ATOM   1939   CD2 LEU A 316      84.514  23.558 -12.336  1.00 19.15 A
     ATOM   1940   C   LEU A 316      84.404  27.860 -12.312  1.00 23.66 A
 45  ATOM   1941   O   LEU A 316      83.215  28.005 -12.013  1.00 25.40 A
     ATOM   1942   N   LEU A 317      85.310  28.816 -12.149  1.00 24.48 A
     ATOM   1943   CA  LEU A 317      84.933  30.121 -11.637  1.00 25.52 A
     ATOM   1944   CB  LEU A 317      86.123  30.793 -10.936  1.00 24.23 A
     ATOM   1945   CG  LEU A 317      86.656  30.035  -9.719  1.00 21.22 A
 50  ATOM   1946   CD1 LEU A 317      87.718  30.859  -9.015  1.00 23.73 A
     ATOM   1947   CD2 LEU A 317      85.515  29.730  -8.773  1.00 21.36 A
     ATOM   1948   C   LEU A 317      84.459  30.953 -12.815  1.00 26.00 A
     ATOM   1949   O   LEU A 317      85.148  31.856 -13.286  1.00 28.02 A
     ATOM   1950   N   VAL A 318      83.272  30.611 -13.293  1.00 27.50 A
 55  ATOM   1951   CA  VAL A 318      82.643  31.286 -14.421  1.00 28.43 A
     ATOM   1952   CB  VAL A 318      82.365  30.280 -15.558  1.00 28.13 A
     ATOM   1953   CG1 VAL A 318      81.624  30.953 -16.694  1.00 29.20 A
     ATOM   1954   CG2 VAL A 318      83.677  29.689 -16.045  1.00 27.12 A
     ATOM   1955   C   VAL A 318      81.331  31.842 -13.896  1.00 29.21 A
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	ATOM	1956	O	VAL	A	318	80.559	31.120	-13.255	1.00 30.06 A
	ATOM	1957	N	LEU	A	319	81.082	33.121	-14.150	1.00 29.94 A
	ATOM	1958	CA	LEU	A	319	79.858	33.758	-13.671	1.00 30.57 A
	ATOM	1959	CB	LEU	A	319	79.808	35.214	-14.133	1.00 32.89 A
5	ATOM	1960	CG	LEU	A	319	80.908	36.115	-13.553	1.00 35.26 A
	ATOM	1961	CD1	LEU	A	319	80.741	37.551	-14.059	1.00 34.63 A
	ATOM	1962	CD2	LEU	A	319	80.835	36.078	-12.028	1.00 34.01 A
	ATOM	1963	C	LEU	A	319	78.598	33.029	-14.117	1.00 30.01 A
	ATOM	1964	O	LEU	A	319	77.704	32.768	-13.316	1.00 30.48 A
10	ATOM	1965	N	ASP	A	320	78.527	32.695	-15.397	1.00 30.13 A
	ATOM	1966	CA	ASP	A	320	77.362	31.996	-15.919	1.00 29.97 A
	ATOM	1967	CB	ASP	A	320	77.393	31.981	-17.444	1.00 32.99 A
	ATOM	1968	CG	ASP	A	320	76.116	31.435	-18.040	1.00 36.86 A
	ATOM	1969	OD1	ASP	A	320	75.495	30.548	-17.412	1.00 38.81 A
15	ATOM	1970	OD2	ASP	A	320	75.739	31.883	-19.142	1.00 38.26 A
	ATOM	1971	C	ASP	A	320	77.373	30.569	-15.402	1.00 28.61 A
	ATOM	1972	O	ASP	A	320	78.244	29.786	-15.758	1.00 28.87 A
	ATOM	1973	N	ALA	A	321	76.398	30.233	-14.566	1.00 28.88 A
	ATOM	1974	CA	ALA	A	321	76.311	28.897	-13.980	1.00 28.04 A
20	ATOM	1975	CB	ALA	A	321	75.156	28.842	-12.990	1.00 25.11 A
	ATOM	1976	C	ALA	A	321	76.151	27.794	-15.021	1.00 27.83 A
	ATOM	1977	O	ALA	A	321	76.500	26.643	-14.773	1.00 27.26 A
	ATOM	1978	N	THR	A	322	75.632	28.150	-16.190	1.00 27.45 A
	ATOM	1979	CA	THR	A	322	75.413	27.167	-17.243	1.00 27.18 A
25	ATOM	1980	CB	THR	A	322	74.294	27.615	-18.191	1.00 26.99 A
	ATOM	1981	OG1	THR	A	322	74.739	28.753	-18.940	1.00 27.15 A
	ATOM	1982	CG2	THR	A	322	73.045	27.997	-17.399	1.00 23.11 A
	ATOM	1983	C	THR	A	322	76.654	26.909	-18.077	1.00 28.31 A
	ATOM	1984	O	THR	A	322	76.605	26.133	-19.027	1.00 28.80 A
30	ATOM	1985	N	LYS	A	323	77.769	27.546	-17.727	1.00 28.30 A
	ATOM	1986	CA	LYS	A	323	78.990	27.348	-18.491	1.00 28.51 A
	ATOM	1987	CB	LYS	A	323	79.392	28.651	-19.172	1.00 30.27 A
	ATOM	1988	CG	LYS	A	323	78.305	29.160	-20.095	1.00 35.72 A
	ATOM	1989	CD	LYS	A	323	78.839	30.081	-21.170	1.00 37.65 A
35	ATOM	1990	CE	LYS	A	323	77.722	30.472	-22.131	1.00 39.59 A
	ATOM	1991	NZ	LYS	A	323	77.088	29.263	-22.733	1.00 40.41 A
	ATOM	1992	C	LYS	A	323	80.154	26.799	-17.683	1.00 28.68 A
	ATOM	1993	O	LYS	A	323	81.298	26.847	-18.119	1.00 29.54 A
	ATOM	1994	N	ARG	A	324	79.866	26.271	-16.503	1.00 27.43 A
40	ATOM	1995	CA	ARG	A	324	80.921	25.709	-15.684	1.00 25.01 A
	ATOM	1996	CB	ARG	A	324	80.559	25.800	-14.205	1.00 22.81 A
	ATOM	1997	CG	ARG	A	324	80.489	27.223	-13.715	1.00 21.68 A
	ATOM	1998	CD	ARG	A	324	80.036	27.315	-12.277	1.00 20.65 A
	ATOM	1999	NE	ARG	A	324	79.655	28.689	-11.971	1.00 21.18 A
45	ATOM	2000	CZ	ARG	A	324	78.645	29.029	-11.180	1.00 19.20 A
	ATOM	2001	NH1	ARG	A	324	77.909	28.093	-10.598	1.00 19.05 A
	ATOM	2002	NH2	ARG	A	324	78.349	30.307	-11.004	1.00 19.45 A
	ATOM	2003	C	ARG	A	324	81.161	24.264	-16.073	1.00 24.64 A
	ATOM	2004	O	ARG	A	324	80.219	23.501	-16.290	1.00 23.78 A
50	ATOM	2005	N	LEU	A	325	82.433	23.902	-16.177	1.00 23.92 A
	ATOM	2006	CA	LEU	A	325	82.809	22.541	-16.526	1.00 25.53 A
	ATOM	2007	CB	LEU	A	325	84.336	22.422	-16.558	1.00 25.18 A
	ATOM	2008	CG	LEU	A	325	84.995	21.178	-17.149	1.00 25.63 A
	ATOM	2009	CD1	LEU	A	325	84.541	20.949	-18.590	1.00 25.39 A
55	ATOM	2010	CD2	LEU	A	325	86.500	21.364	-17.087	1.00 23.10 A
	ATOM	2011	C	LEU	A	325	82.224	21.610	-15.466	1.00 25.01 A
	ATOM	2012	O	LEU	A	325	82.449	21.809	-14.278	1.00 23.81 A
	ATOM	2013	N	GLY	A	326	81.450	20.616	-15.900	1.00 26.41 A
	ATOM	2014	CA	GLY	A	326	80.850	19.683	-14.964	1.00 26.13 A

	ATOM	2015	C	GLY A 326	79.338	19.771	-14.835	1.00	29.31	A
	ATOM	2016	O	GLY A 326	78.697	18.795	-14.444	1.00	31.67	A
	ATOM	2017	N	CYS A 327	78.753	20.918	-15.162	1.00	29.49	A
	ATOM	2018	CA	CYS A 327	77.308	21.073	-15.042	1.00	31.91	A
5	ATOM	2019	CB	CYS A 327	76.935	22.556	-14.982	1.00	31.78	A
	ATOM	2020	SG	CYS A 327	77.084	23.397	-16.552	1.00	38.33	A
	ATOM	2021	C	CYS A 327	76.539	20.385	-16.175	1.00	32.76	A
	ATOM	2022	O	CYS A 327	77.096	20.069	-17.228	1.00	32.18	A
	ATOM	2023	N	GLU A 328	75.248	20.175	-15.952	1.00	33.60	A
10	ATOM	2024	CA	GLU A 328	74.400	19.497	-16.921	1.00	36.82	A
	ATOM	2025	CB	GLU A 328	72.951	19.479	-16.408	1.00	41.60	A
	ATOM	2026	CG	GLU A 328	72.845	19.437	-14.863	1.00	48.96	A
	ATOM	2027	CD	GLU A 328	72.000	18.279	-14.321	1.00	51.75	A
	ATOM	2028	OE1	GLU A 328	72.393	17.103	-14.509	1.00	52.77	A
15	ATOM	2029	OE2	GLU A 328	70.948	18.550	-13.696	1.00	52.29	A
	ATOM	2030	C	GLU A 328	74.466	20.120	-18.317	1.00	35.83	A
	ATOM	2031	O	GLU A 328	74.618	19.412	-19.318	1.00	34.85	A
	ATOM	2032	N	GLU A 329	74.370	21.443	-18.378	1.00	33.75	A
	ATOM	2033	CA	GLU A 329	74.399	22.146	-19.650	1.00	32.37	A
20	ATOM	2034	CB	GLU A 329	74.153	23.640	-19.439	1.00	34.70	A
	ATOM	2035	CG	GLU A 329	72.898	23.972	-18.640	1.00	38.53	A
	ATOM	2036	CD	GLU A 329	73.017	23.589	-17.172	1.00	41.60	A
	ATOM	2037	OE1	GLU A 329	74.048	23.926	-16.548	1.00	44.03	A
	ATOM	2038	OE2	GLU A 329	72.080	22.958	-16.636	1.00	44.74	A
25	ATOM	2039	C	GLU A 329	75.711	21.947	-20.399	1.00	30.96	A
	ATOM	2040	O	GLU A 329	75.757	22.114	-21.617	1.00	28.90	A
	ATOM	2041	N	MET A 330	76.773	21.605	-19.673	1.00	29.20	A
	ATOM	2042	CA	MET A 330	78.075	21.379	-20.291	1.00	27.90	A
	ATOM	2043	CB	MET A 330	79.190	22.010	-19.455	1.00	30.57	A
30	ATOM	2044	CG	MET A 330	79.189	23.536	-19.446	1.00	32.33	A
	ATOM	2045	SD	MET A 330	79.488	24.269	-21.070	1.00	36.55	A
	ATOM	2046	CE	MET A 330	81.257	24.001	-21.239	1.00	35.61	A
	ATOM	2047	C	MET A 330	78.319	19.883	-20.443	1.00	27.32	A
	ATOM	2048	O	MET A 330	79.452	19.436	-20.606	1.00	25.82	A
35	ATOM	2049	N	GLU A 331	77.232	19.122	-20.365	1.00	25.18	A
	ATOM	2050	CA	GLU A 331	77.246	17.677	-20.526	1.00	24.56	A
	ATOM	2051	CB	GLU A 331	77.922	17.295	-21.848	1.00	23.55	A
	ATOM	2052	CG	GLU A 331	77.395	18.099	-23.030	1.00	25.42	A
	ATOM	2053	CD	GLU A 331	75.867	18.176	-23.082	1.00	28.50	A
40	ATOM	2054	OE1	GLU A 331	75.338	19.094	-23.750	1.00	31.00	A
	ATOM	2055	OE2	GLU A 331	75.190	17.323	-22.467	1.00	30.18	A
	ATOM	2056	C	GLU A 331	77.804	16.834	-19.396	1.00	24.55	A
	ATOM	2057	O	GLU A 331	78.327	15.745	-19.629	1.00	25.02	A
	ATOM	2058	N	GLY A 332	77.692	17.339	-18.172	1.00	22.83	A
45	ATOM	2059	CA	GLY A 332	78.098	16.564	-17.017	1.00	20.57	A
	ATOM	2060	C	GLY A 332	79.541	16.408	-16.606	1.00	20.81	A
	ATOM	2061	O	GLY A 332	80.430	17.167	-16.999	1.00	19.36	A
	ATOM	2062	N	TYR A 333	79.753	15.374	-15.801	1.00	20.19	A
	ATOM	2063	CA	TYR A 333	81.053	15.056	-15.243	1.00	20.12	A
50	ATOM	2064	CB	TYR A 333	80.860	14.127	-14.052	1.00	20.05	A
	ATOM	2065	CG	TYR A 333	80.483	14.902	-12.828	1.00	21.40	A
	ATOM	2066	CD1	TYR A 333	81.464	15.367	-11.956	1.00	22.85	A
	ATOM	2067	CE1	TYR A 333	81.141	16.181	-10.878	1.00	22.91	A
	ATOM	2068	CD2	TYR A 333	79.160	15.266	-12.590	1.00	21.24	A
55	ATOM	2069	CE2	TYR A 333	78.827	16.082	-11.518	1.00	22.71	A
	ATOM	2070	CZ	TYR A 333	79.827	16.535	-10.670	1.00	21.44	A
	ATOM	2071	OH	TYR A 333	79.522	17.358	-9.621	1.00	24.72	A
	ATOM	2072	C	TYR A 333	82.076	14.484	-16.192	1.00	20.38	A
	ATOM	2073	O	TYR A 333	83.277	14.533	-15.910	1.00	18.82	A

	ATOM	2074	N	GLY	A	334	81.610	13.942	-17.313	1.00	20.41	A
	ATOM	2075	CA	GLY	A	334	82.534	13.378	-18.280	1.00	20.48	A
	ATOM	2076	C	GLY	A	334	83.611	14.367	-18.693	1.00	20.12	A
	ATOM	2077	O	GLY	A	334	84.808	14.105	-18.539	1.00	21.13	A
5	ATOM	2078	N	PRO	A	335	83.216	15.524	-19.230	1.00	19.75	A
	ATOM	2079	CD	PRO	A	335	81.872	15.899	-19.699	1.00	19.25	A
	ATOM	2080	CA	PRO	A	335	84.218	16.512	-19.644	1.00	19.66	A
	ATOM	2081	CB	PRO	A	335	83.366	17.644	-20.212	1.00	17.92	A
	ATOM	2082	CG	PRO	A	335	82.184	16.901	-20.784	1.00	19.24	A
10	ATOM	2083	C	PRO	A	335	85.115	16.967	-18.495	1.00	19.62	A
	ATOM	2084	O	PRO	A	335	86.315	17.154	-18.679	1.00	21.87	A
	ATOM	2085	N	LEU	A	336	84.538	17.131	-17.307	1.00	19.91	A
	ATOM	2086	CA	LEU	A	336	85.312	17.576	-16.147	1.00	19.06	A
	ATOM	2087	CB	LEU	A	336	84.406	17.767	-14.914	1.00	18.05	A
15	ATOM	2088	CG	LEU	A	336	85.073	18.119	-13.571	1.00	18.25	A
	ATOM	2089	CD1	LEU	A	336	86.049	19.280	-13.746	1.00	15.57	A
	ATOM	2090	CD2	LEU	A	336	84.009	18.473	-12.538	1.00	15.31	A
	ATOM	2091	C	LEU	A	336	86.424	16.594	-15.832	1.00	17.85	A
	ATOM	2092	O	LEU	A	336	87.582	16.986	-15.690	1.00	17.14	A
20	ATOM	2093	N	LYS	A	337	86.075	15.317	-15.732	1.00	17.96	A
	ATOM	2094	CA	LYS	A	337	87.061	14.289	-15.438	1.00	19.15	A
	ATOM	2095	CB	LYS	A	337	86.352	12.966	-15.134	1.00	21.53	A
	ATOM	2096	CG	LYS	A	337	85.571	13.025	-13.821	1.00	25.58	A
	ATOM	2097	CD	LYS	A	337	84.484	11.956	-13.715	1.00	26.69	A
25	ATOM	2098	CE	LYS	A	337	85.063	10.566	-13.571	1.00	29.78	A
	ATOM	2099	NZ	LYS	A	337	83.979	9.552	-13.368	1.00	30.74	A
	ATOM	2100	C	LYS	A	337	88.065	14.120	-16.576	1.00	21.13	A
	ATOM	2101	O	LYS	A	337	89.170	13.631	-16.362	1.00	21.11	A
	ATOM	2102	N	ALA	A	338	87.697	14.549	-17.780	1.00	21.55	A
30	ATOM	2103	CA	ALA	A	338	88.600	14.426	-18.922	1.00	22.23	A
	ATOM	2104	CB	ALA	A	338	87.802	14.368	-20.221	1.00	21.66	A
	ATOM	2105	C	ALA	A	338	89.604	15.569	-18.988	1.00	23.04	A
	ATOM	2106	O	ALA	A	338	90.518	15.541	-19.800	1.00	22.63	A
	ATOM	2107	N	HIS	A	339	89.447	16.570	-18.131	1.00	23.26	A
35	ATOM	2108	CA	HIS	A	339	90.362	17.705	-18.148	1.00	23.33	A
	ATOM	2109	CB	HIS	A	339	90.017	18.680	-17.027	1.00	22.99	A
	ATOM	2110	CG	HIS	A	339	90.696	20.004	-17.156	1.00	23.43	A
	ATOM	2111	CD2	HIS	A	339	90.279	21.168	-17.710	1.00	24.32	A
	ATOM	2112	ND1	HIS	A	339	91.993	20.219	-16.741	1.00	22.64	A
40	ATOM	2113	CE1	HIS	A	339	92.346	21.459	-17.036	1.00	24.03	A
	ATOM	2114	NE2	HIS	A	339	91.324	22.056	-17.626	1.00	23.65	A
	ATOM	2115	C	HIS	A	339	91.833	17.302	-18.046	1.00	24.36	A
	ATOM	2116	O	HIS	A	339	92.186	16.376	-17.317	1.00	24.27	A
	ATOM	2117	N	PRO	A	340	92.713	17.999	-18.788	1.00	25.89	A
45	ATOM	2118	CD	PRO	A	340	92.394	19.050	-19.777	1.00	26.27	A
	ATOM	2119	CA	PRO	A	340	94.151	17.714	-18.785	1.00	26.69	A
	ATOM	2120	CB	PRO	A	340	94.727	18.861	-19.613	1.00	26.46	A
	ATOM	2121	CG	PRO	A	340	93.654	19.090	-20.636	1.00	25.56	A
	ATOM	2122	C	PRO	A	340	94.772	17.629	-17.396	1.00	27.13	A
50	ATOM	2123	O	PRO	A	340	95.686	16.841	-17.167	1.00	28.89	A
	ATOM	2124	N	PHE	A	341	94.281	18.438	-16.466	1.00	26.76	A
	ATOM	2125	CA	PHE	A	341	94.815	18.417	-15.110	1.00	25.83	A
	ATOM	2126	CB	PHE	A	341	94.100	19.451	-14.239	1.00	24.58	A
	ATOM	2127	CG	PHE	A	341	94.628	19.527	-12.835	1.00	23.75	A
55	ATOM	2128	CD1	PHE	A	341	95.890	20.060	-12.578	1.00	24.62	A
	ATOM	2129	CD2	PHE	A	341	93.867	19.066	-11.765	1.00	24.82	A
	ATOM	2130	CE1	PHE	A	341	96.386	20.136	-11.273	1.00	23.48	A
	ATOM	2131	CE2	PHE	A	341	94.352	19.136	-10.454	1.00	23.61	A
	ATOM	2132	CZ	PHE	A	341	95.614	19.673	-10.209	1.00	23.80	A

	ATOM	2133	C	PHE A 341	94.684	17.039	-14.458	1.00	25.53	A
	ATOM	2134	O	PHE A 341	95.453	16.698	-13.572	1.00	25.60	A
	ATOM	2135	N	PHE A 342	93.718	16.248	-14.905	1.00	26.56	A
	ATOM	2136	CA	PHE A 342	93.486	14.928	-14.327	1.00	28.32	A
5	ATOM	2137	CB	PHE A 342	91.992	14.724	-14.095	1.00	25.63	A
	ATOM	2138	CG	PHE A 342	91.374	15.731	-13.169	1.00	24.19	A
	ATOM	2139	CD1	PHE A 342	91.830	15.868	-11.859	1.00	24.72	A
	ATOM	2140	CD2	PHE A 342	90.285	16.492	-13.579	1.00	21.46	A
	ATOM	2141	CE1	PHE A 342	91.200	16.744	-10.969	1.00	22.95	A
10	ATOM	2142	CE2	PHE A 342	89.649	17.368	-12.699	1.00	19.82	A
	ATOM	2143	CZ	PHE A 342	90.105	17.491	-11.393	1.00	20.87	A
	ATOM	2144	C	PHE A 342	94.009	13.811	-15.217	1.00	31.08	A
	ATOM	2145	O	PHE A 342	93.655	12.643	-15.047	1.00	32.72	A
	ATOM	2146	N	GLU A 343	94.863	14.183	-16.159	1.00	33.50	A
15	ATOM	2147	CA	GLU A 343	95.446	13.250	-17.114	1.00	36.10	A
	ATOM	2148	CB	GLU A 343	96.738	13.853	-17.676	1.00	38.76	A
	ATOM	2149	CG	GLU A 343	96.842	13.883	-19.194	1.00	44.39	A
	ATOM	2150	CD	GLU A 343	96.911	15.307	-19.750	1.00	48.43	A
	ATOM	2151	OE1	GLU A 343	97.665	16.143	-19.190	1.00	47.87	A
20	ATOM	2152	OE2	GLU A 343	96.217	15.587	-20.755	1.00	49.34	A
	ATOM	2153	C	GLU A 343	95.747	11.855	-16.552	1.00	35.54	A
	ATOM	2154	O	GLU A 343	95.210	10.847	-17.019	1.00	33.70	A
	ATOM	2155	N	SER A 344	96.604	11.810	-15.539	1.00	34.66	A
	ATOM	2156	CA	SER A 344	97.024	10.545	-14.950	1.00	33.91	A
25	ATOM	2157	CB	SER A 344	98.421	10.712	-14.360	1.00	33.13	A
	ATOM	2158	OG	SER A 344	98.387	11.578	-13.242	1.00	30.32	A
	ATOM	2159	C	SER A 344	96.116	9.927	-13.886	1.00	33.50	A
	ATOM	2160	O	SER A 344	96.510	8.962	-13.234	1.00	32.98	A
	ATOM	2161	N	VAL A 345	94.908	10.448	-13.713	1.00	31.80	A
30	ATOM	2162	CA	VAL A 345	94.021	9.903	-12.689	1.00	31.70	A
	ATOM	2163	CB	VAL A 345	93.039	10.981	-12.152	1.00	31.20	A
	ATOM	2164	CG1	VAL A 345	92.153	10.375	-11.079	1.00	29.96	A
	ATOM	2165	CG2	VAL A 345	93.799	12.176	-11.601	1.00	27.23	A
	ATOM	2166	C	VAL A 345	93.175	8.707	-13.133	1.00	32.88	A
35	ATOM	2167	O	VAL A 345	92.597	8.712	-14.223	1.00	32.39	A
	ATOM	2168	N	THR A 346	93.109	7.688	-12.279	1.00	31.88	A
	ATOM	2169	CA	THR A 346	92.285	6.511	-12.539	1.00	32.94	A
	ATOM	2170	CB	THR A 346	93.007	5.209	-12.149	1.00	35.61	A
	ATOM	2171	OG1	THR A 346	94.137	5.012	-13.013	1.00	37.85	A
40	ATOM	2172	CG2	THR A 346	92.060	4.022	-12.267	1.00	32.32	A
	ATOM	2173	C	THR A 346	91.051	6.700	-11.658	1.00	33.08	A
	ATOM	2174	O	THR A 346	91.083	6.460	-10.448	1.00	34.21	A
	ATOM	2175	N	TRP A 347	89.964	7.142	-12.274	1.00	31.78	A
	ATOM	2176	CA	TRP A 347	88.741	7.427	-11.549	1.00	31.53	A
45	ATOM	2177	CB	TRP A 347	87.769	8.171	-12.463	1.00	28.28	A
	ATOM	2178	CG	TRP A 347	88.303	9.476	-12.937	1.00	23.66	A
	ATOM	2179	CD2	TRP A 347	88.263	10.722	-12.231	1.00	23.03	A
	ATOM	2180	CE2	TRP A 347	88.927	11.678	-13.031	1.00	20.77	A
	ATOM	2181	CE3	TRP A 347	87.731	11.121	-10.999	1.00	20.57	A
50	ATOM	2182	CD1	TRP A 347	88.969	9.718	-14.102	1.00	21.92	A
	ATOM	2183	NE1	TRP A 347	89.348	11.041	-14.168	1.00	22.23	A
	ATOM	2184	CZ2	TRP A 347	89.074	13.008	-12.640	1.00	21.04	A
	ATOM	2185	CZ3	TRP A 347	87.876	12.444	-10.611	1.00	20.11	A
	ATOM	2186	CH2	TRP A 347	88.544	13.372	-11.430	1.00	20.44	A
55	ATOM	2187	C	TRP A 347	88.014	6.267	-10.899	1.00	34.19	A
	ATOM	2188	O	TRP A 347	87.382	6.440	-9.854	1.00	34.97	A
	ATOM	2189	N	GLU A 348	88.108	5.089	-11.502	1.00	35.77	A
	ATOM	2190	CA	GLU A 348	87.405	3.913	-11.000	1.00	36.41	A
	ATOM	2191	CB	GLU A 348	87.600	2.740	-11.977	1.00	36.95	A

	ATOM	2192	CG	GLU A 348	88.990	2.626	-12.588	0.00	36.86	A
	ATOM	2193	CD	GLU A 348	89.173	3.510	-13.812	0.00	36.91	A
	ATOM	2194	OE1	GLU A 348	89.119	4.750	-13.677	0.00	36.92	A
	ATOM	2195	OE2	GLU A 348	89.370	2.960	-14.916	0.00	36.92	A
5	ATOM	2196	C	GLU A 348	87.668	3.435	-9.563	1.00	36.38	A
	ATOM	2197	O	GLU A 348	86.773	2.866	-8.935	1.00	38.29	A
	ATOM	2198	N	ASN A 349	88.857	3.669	-9.019	1.00	34.41	A
	ATOM	2199	CA	ASN A 349	89.134	3.182	-7.668	1.00	33.02	A
	ATOM	2200	CB	ASN A 349	89.848	1.844	-7.765	1.00	34.07	A
10	ATOM	2201	CG	ASN A 349	91.220	1.978	-8.381	1.00	35.48	A
	ATOM	2202	OD1	ASN A 349	91.409	2.742	-9.324	1.00	35.13	A
	ATOM	2203	ND2	ASN A 349	92.188	1.235	-7.852	1.00	38.04	A
	ATOM	2204	C	ASN A 349	89.970	4.116	-6.804	1.00	30.73	A
	ATOM	2205	O	ASN A 349	90.878	3.672	-6.106	1.00	30.66	A
15	ATOM	2206	N	LEU A 350	89.662	5.403	-6.850	1.00	28.42	A
	ATOM	2207	CA	LEU A 350	90.390	6.397	-6.072	1.00	27.13	A
	ATOM	2208	CB	LEU A 350	89.655	7.737	-6.128	1.00	25.19	A
	ATOM	2209	CG	LEU A 350	89.803	8.543	-7.418	1.00	25.97	A
	ATOM	2210	CD1	LEU A 350	88.841	9.732	-7.428	1.00	26.30	A
20	ATOM	2211	CD2	LEU A 350	91.242	9.014	-7.521	1.00	27.40	A
	ATOM	2212	C	LEU A 350	90.581	5.999	-4.614	1.00	26.30	A
	ATOM	2213	O	LEU A 350	91.645	6.201	-4.036	1.00	26.73	A
	ATOM	2214	N	HIS A 351	89.547	5.424	-4.024	1.00	27.16	A
	ATOM	2215	CA	HIS A 351	89.593	5.044	-2.622	1.00	28.60	A
25	ATOM	2216	CB	HIS A 351	88.184	4.748	-2.124	1.00	29.94	A
	ATOM	2217	CG	HIS A 351	88.111	4.503	-0.653	1.00	30.99	A
	ATOM	2218	CD2	HIS A 351	88.324	5.329	0.399	1.00	31.86	A
	ATOM	2219	ND1	HIS A 351	87.790	3.275	-0.118	1.00	29.43	A
	ATOM	2220	CE1	HIS A 351	87.804	3.356	1.202	1.00	31.81	A
30	ATOM	2221	NE2	HIS A 351	88.125	4.592	1.541	1.00	32.90	A
	ATOM	2222	C	HIS A 351	90.509	3.873	-2.298	1.00	28.99	A
	ATOM	2223	O	HIS A 351	90.875	3.677	-1.141	1.00	28.53	A
	ATOM	2224	N	GLN A 352	90.865	3.088	-3.307	1.00	30.57	A
	ATOM	2225	CA	GLN A 352	91.764	1.959	-3.095	1.00	33.42	A
35	ATOM	2226	CB	GLN A 352	91.563	0.880	-4.162	1.00	35.01	A
	ATOM	2227	CG	GLN A 352	90.696	-0.289	-3.737	1.00	37.07	A
	ATOM	2228	CD	GLN A 352	89.275	0.123	-3.474	1.00	39.83	A
	ATOM	2229	OE1	GLN A 352	88.676	0.856	-4.267	1.00	41.90	A
	ATOM	2230	NE2	GLN A 352	88.712	-0.351	-2.365	1.00	39.86	A
40	ATOM	2231	C	GLN A 352	93.197	2.457	-3.173	1.00	33.85	A
	ATOM	2232	O	GLN A 352	94.126	1.782	-2.734	1.00	35.32	A
	ATOM	2233	N	GLN A 353	93.368	3.647	-3.734	1.00	32.53	A
	ATOM	2234	CA	GLN A 353	94.693	4.216	-3.886	1.00	32.78	A
	ATOM	2235	CB	GLN A 353	94.666	5.298	-4.965	1.00	32.07	A
45	ATOM	2236	CG	GLN A 353	94.373	4.739	-6.345	1.00	31.94	A
	ATOM	2237	CD	GLN A 353	94.206	5.819	-7.382	1.00	32.50	A
	ATOM	2238	OE1	GLN A 353	95.008	6.749	-7.452	1.00	35.33	A
	ATOM	2239	NE2	GLN A 353	93.167	5.701	-8.204	1.00	31.02	A
	ATOM	2240	C	GLN A 353	95.246	4.779	-2.588	1.00	33.27	A
50	ATOM	2241	O	GLN A 353	94.494	5.209	-1.717	1.00	32.38	A
	ATOM	2242	N	THR A 354	96.570	4.746	-2.462	1.00	33.29	A
	ATOM	2243	CA	THR A 354	97.239	5.267	-1.280	1.00	34.35	A
	ATOM	2244	CB	THR A 354	98.615	4.601	-1.069	1.00	35.88	A
	ATOM	2245	OG1	THR A 354	98.430	3.232	-0.690	1.00	36.70	A
55	ATOM	2246	CG2	THR A 354	99.403	5.325	0.027	1.00	36.08	A
	ATOM	2247	C	THR A 354	97.440	6.760	-1.478	1.00	33.06	A
	ATOM	2248	O	THR A 354	98.120	7.181	-2.403	1.00	31.33	A
	ATOM	2249	N	PRO A 355	96.844	7.581	-0.604	1.00	33.40	A
	ATOM	2250	CD	PRO A 355	96.000	7.220	0.544	1.00	31.90	A

	ATOM	2251	CA	PRO A 355	96.974	9.035	-0.710	1.00	34.90	A
	ATOM	2252	CB	PRO A 355	96.156	9.543	0.475	1.00	33.68	A
	ATOM	2253	CG	PRO A 355	95.160	8.452	0.698	1.00	33.37	A
	ATOM	2254	C	PRO A 355	98.428	9.475	-0.623	1.00	36.27	A
5	ATOM	2255	O	PRO A 355	99.196	8.960	0.191	1.00	35.70	A
	ATOM	2256	N	PRO A 356	98.824	10.433	-1.464	1.00	37.66	A
	ATOM	2257	CD	PRO A 356	98.010	11.198	-2.423	1.00	38.22	A
	ATOM	2258	CA	PRO A 356	100.205	10.916	-1.441	1.00	39.93	A
	ATOM	2259	CB	PRO A 356	100.227	11.944	-2.570	1.00	38.83	A
10	ATOM	2260	CG	PRO A 356	98.818	12.466	-2.580	1.00	38.26	A
	ATOM	2261	C	PRO A 356	100.532	11.534	-0.085	1.00	41.87	A
	ATOM	2262	O	PRO A 356	99.696	12.209	0.506	1.00	40.91	A
	ATOM	2263	N	ALA A 357	101.741	11.286	0.409	1.00	46.23	A
	ATOM	2264	CA	ALA A 357	102.160	11.837	1.691	1.00	51.16	A
15	ATOM	2265	CB	ALA A 357	103.587	11.410	2.001	1.00	49.78	A
	ATOM	2266	C	ALA A 357	102.077	13.354	1.589	1.00	54.64	A
	ATOM	2267	O	ALA A 357	102.591	13.942	0.637	1.00	55.14	A
	ATOM	2268	N	LEU A 358	101.419	13.985	2.559	1.00	58.59	A
	ATOM	2269	CA	LEU A 358	101.276	15.437	2.552	1.00	62.92	A
20	ATOM	2270	CB	LEU A 358	100.107	15.866	3.441	1.00	62.51	A
	ATOM	2271	CG	LEU A 358	98.732	15.752	2.783	1.00	63.05	A
	ATOM	2272	CD1	LEU A 358	97.657	16.251	3.737	1.00	63.34	A
	ATOM	2273	CD2	LEU A 358	98.721	16.570	1.494	1.00	62.56	A
	ATOM	2274	C	LEU A 358	102.536	16.173	2.984	1.00	65.81	A
25	ATOM	2275	O	LEU A 358	102.675	16.559	4.148	1.00	66.45	A
	ATOM	2276	N	THR A 359	103.441	16.368	2.025	1.00	69.31	A
	ATOM	2277	CA	THR A 359	104.715	17.057	2.236	1.00	72.25	A
	ATOM	2278	CB	THR A 359	104.519	18.594	2.271	1.00	73.17	A
	ATOM	2279	OG1	THR A 359	103.564	18.937	3.284	1.00	75.38	A
30	ATOM	2280	CG2	THR A 359	104.030	19.101	0.916	1.00	72.93	A
	ATOM	2281	C	THR A 359	105.468	16.627	3.497	1.00	73.76	A
	ATOM	2282	O	THR A 359	105.011	15.683	4.180	1.00	74.61	A
	ATOM	2283	OXT	THR A 359	106.523	17.237	3.780	1.00	75.50	A
	ATOM	2284	OH2	TIP S 1	82.965	32.402	-3.946	1.00	13.32	S
35	ATOM	2285	OH2	TIP S 2	91.556	13.784	-17.557	1.00	22.11	S
	ATOM	2286	OH2	TIP S 3	87.391	33.155	-1.722	1.00	22.84	S
	ATOM	2287	OH2	TIP S 4	69.033	3.499	13.879	1.00	22.91	S
	ATOM	2288	OH2	TIP S 5	81.088	19.368	-18.406	1.00	24.13	S
	ATOM	2289	OH2	TIP S 6	75.641	16.130	8.209	1.00	26.44	S
40	ATOM	2290	OH2	TIP S 7	74.760	20.961	3.347	1.00	27.74	S
	ATOM	2291	OH2	TIP S 8	75.152	6.784	5.545	1.00	22.53	S
	ATOM	2292	OH2	TIP S 9	77.282	11.807	-17.666	1.00	35.96	S
	ATOM	2293	OH2	TIP S 10	81.785	8.968	-8.072	1.00	25.44	S
	ATOM	2294	OH2	TIP S 11	78.609	24.424	-2.074	1.00	22.05	S
45	ATOM	2295	OH2	TIP S 12	94.883	8.256	-9.981	1.00	37.17	S
	ATOM	2296	OH2	TIP S 13	73.164	38.970	-1.072	1.00	35.95	S
	ATOM	2297	OH2	TIP S 14	78.806	27.556	-3.116	1.00	39.27	S
	ATOM	2298	OH2	TIP S 15	89.050	8.041	10.604	1.00	23.40	S
	ATOM	2299	OH2	TIP S 16	73.265	40.376	-3.301	1.00	26.94	S
50	ATOM	2300	OH2	TIP S 18	84.081	33.371	4.243	1.00	30.61	S
	ATOM	2301	OH2	TIP S 19	78.571	-0.530	16.531	1.00	26.61	S
	ATOM	2302	OH2	TIP S 21	70.088	3.703	17.559	1.00	28.94	S
	ATOM	2303	OH2	TIP S 22	79.212	13.330	-18.791	1.00	26.94	S
	ATOM	2304	OH2	TIP S 23	91.672	10.665	-16.153	1.00	30.26	S
55	ATOM	2305	OH2	TIP S 25	104.173	17.689	-7.204	1.00	31.65	S
	ATOM	2306	OH2	TIP S 27	87.578	18.354	-20.604	1.00	25.98	S
	ATOM	2307	OH2	TIP S 28	82.272	34.870	-16.021	1.00	27.40	S
	ATOM	2308	OH2	TIP S 29	100.496	13.074	-9.812	1.00	37.92	S
	ATOM	2309	OH2	TIP S 30	65.147	10.515	28.440	1.00	40.03	S

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      ATOM   2310  OH2 TIP S   31      90.721  38.800   -4.631  1.00 42.09 S
      ATOM   2311  OH2 TIP S   32      83.367  23.841   15.654  1.00 36.15 S
      ATOM   2312  OH2 TIP S   33      87.754  11.897   23.760  1.00 26.76 S
      ATOM   2313  OH2 TIP S   34      77.755  13.485  -15.395  1.00 31.85 S
   5  ATOM   2314  OH2 TIP S   35      79.767  43.115    5.371  1.00 35.26 S
      ATOM   2315  OH2 TIP S   37      80.173  32.998    6.198  1.00 40.03 S
      ATOM   2316  OH2 TIP S   40      85.958  19.110   24.502  1.00 24.42 S
      ATOM   2317  OH2 TIP S   42      77.719  -0.391   23.732  1.00 39.71 S
      ATOM   2318  OH2 TIP S   44      92.563  36.428   -5.574  1.00 35.43 S
  10  ATOM   2319  OH2 TIP S   45      90.942  34.092    3.570  1.00 43.64 S
      ATOM   2320  OH2 TIP S   46      74.357  32.157  -13.849  1.00 33.31 S
      ATOM   2321  OH2 TIP S   47      90.220  14.449   16.172  1.00 34.34 S
      ATOM   2322  OH2 TIP S   48      77.876  11.229  -13.863  1.00 23.53 S
      ATOM   2323  OH2 TIP S   50      76.289  12.589  -11.572  1.00 37.74 S
  15  ATOM   2324  OH2 TIP S   51      76.619   2.787   -2.969  1.00 35.95 S
      ATOM   2325  OH2 TIP S   52      65.118  19.629   24.370  1.00 34.85 S
      ATOM   2326  OH2 TIP S   53      99.690  31.473  -13.046  1.00 48.21 S
      ATOM   2327  OH2 TIP S   54      88.376  36.865    3.454  1.00 38.54 S
      ATOM   2328  OH2 TIP S   57      91.236  10.819   18.279  1.00 40.76 S
  20  ATOM   2329  OH2 TIP S   59     100.017  21.990  -14.622  1.00 41.65 S
      ATOM   2330  OH2 TIP S   63      87.188  25.521   11.438  1.00 41.53 S
      ATOM   2331  OH2 TIP S   65      90.264  19.625   12.286  1.00 24.22 S
      ATOM   2332  OH2 TIP S   66      83.805  26.254  -18.365  1.00 37.50 S
      ATOM   2333  OH2 TIP S   68      78.394   7.378    2.855  1.00 23.47 S
  25  ATOM   2334  OH2 TIP S   74      85.541  11.500  -18.436  1.00 37.35 S
      ATOM   2335  OH2 TIP S   76      98.981   8.707    2.808  1.00 47.34 S
      ATOM   2336  OH2 TIP S   78      87.802  19.118   22.522  1.00 39.99 S
      ATOM   2337  OH2 TIP S   80      92.438   3.105    2.517  1.00 37.27 S
      ATOM   2338  OH2 TIP S   81      75.580  -0.821   22.186  1.00 36.41 S
  30  ATOM   2339  OH2 TIP S   82      60.506  24.278   21.938  1.00 31.55 S
      ATOM   2340  OH2 TIP S   83      92.298  22.520  -21.183  1.00 42.32 S
      ATOM   2341  OH2 TIP S   84      74.351   4.211   -3.464  1.00 32.53 S
      ATOM   2342  OH2 TIP S   85      76.502  25.963  -21.839  1.00 41.89 S
      ATOM   2343  OH2 TIP S   86      97.965  13.142    9.216  1.00 41.76 S
  35  ATOM   2344  OH2 TIP S   87      78.657   4.418    3.361  1.00 35.63 S
      ATOM   2345  OH2 TIP S   88      93.633  28.572    3.429  1.00 34.30 S
      ATOM   2346  OH2 TIP S   89     104.691  20.306   -7.235  1.00 32.75 S
      ATOM   2347  OH2 TIP S   91      98.360  16.754  -15.558  1.00 37.92 S
      ATOM   2348  OH2 TIP S   92      88.175  32.723  -14.088  1.00 38.91 S
  40  ATOM   2349  OH2 TIP S   93      96.974  27.936  -17.613  1.00 34.47 S
      ATOM   2350  OH2 TIP S   94      85.585  22.346   15.199  1.00 41.12 S
      ATOM   2351  OH2 TIP S  100      80.948  -0.010    7.892  1.00 12.04 S
      ATOM   2352  OH2 TIP S  101      76.653  29.202   -3.527  1.00 22.10 S
      ATOM   2353  OH2 TIP S  102      74.980   8.979   -7.975  1.00 21.17 S
  45  ATOM   2354  OH2 TIP S  103      88.843  28.393    3.994  1.00 30.94 S
      ATOM   2355  OH2 TIP S  105      76.862   8.067   28.490  1.00 20.20 S
      ATOM   2356  OH2 TIP S  106      66.435  30.702    8.817  1.00 35.87 S
      ATOM   2357  OH2 TIP S  109      67.384   7.757    8.860  1.00 39.38 S
      ATOM   2358  OH2 TIP S  110      66.852   4.666   22.301  1.00 32.75 S
  50  ATOM   2359  OH2 TIP S  111      72.391   2.229   -3.501  1.00 51.07 S
      ATOM   2360  OH2 TIP S  116      80.209   7.061   -7.886  1.00 35.49 S
      ATOM   2361  OH2 TIP S  121      74.466  15.313  -12.357  1.00 45.36 S
      ATOM   2362  OH2 TIP S  122      79.225  28.627    0.179  1.00 30.68 S
      ATOM   2363  OH2 TIP S  124      59.090  22.126   22.498  1.00 35.94 S
  55  ATOM   2364  OH2 TIP S  126      73.715  24.448  -13.973  1.00 44.35 S
      ATOM   2365  OH2 TIP S  127     105.619  22.931  -11.256  1.00 43.80 S
      ATOM   2366  OH2 TIP S  128      86.658  32.319  -16.090  1.00 39.40 S
      ATOM   2367  OH2 TIP S  129      70.750  21.709  -10.875  1.00 45.74 S
      ATOM   2368  OH2 TIP S  136      77.820  12.663    6.090  1.00 47.18 S
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     ATOM   2369   OH2  TIP  S  142      90.942   35.947  -13.582   1.00  48.16  S
     ATOM   2370   OH2  TIP  S  146      67.351    6.830   24.075   1.00  36.66  S
     ATOM   2371   OH2  TIP  S  148      98.067   12.182   -7.216   1.00  38.66  S
     ATOM   2372   OH2  TIP  S  156      75.211   13.809  -20.582   1.00  45.56  S
  5  ATOM   2373   OH2  TIP  S  158      72.261   20.575   12.175   1.00  51.45  S
     ATOM   2374   OH2  TIP  S  166      77.289   42.685    7.086   1.00  42.23  S
     ATOM   2375   OH2  TIP  S  174      65.330    6.552   20.003   1.00  42.22  S
     ATOM   2376   OH2  TIP  S  176      88.027   20.872  -20.665   1.00  35.09  S
     ATOM   2377   OH2  TIP  S  178      99.488   29.517  -16.497   1.00  44.21  S
 10  ATOM   2378   OH2  TIP  S  182      93.851   13.830  -20.448   1.00  50.19  S
     ATOM   2379   OH2  TIP  S  192      83.811   26.388    9.460   1.00  39.52  S
     ATOM   2380   OH2  TIP  S  193      91.704   42.080    2.405   1.00  40.67  S
     ATOM   2381   O12  GLC  G    1      82.624    0.887   12.473   1.00  47.94  G
     ATOM   2382   C11  GLC  G    1      82.240    2.160   13.000   1.00  48.49  G
 15  ATOM   2383   C13  GLC  G    1      83.237    3.235   12.553   1.00  46.87  G
     ATOM   2384   O14  GLC  G    1      84.544    2.903   13.022   1.00  46.62  G
     ATOM   2385   C15  GLC  G    1      82.817    4.591   13.117   1.00  45.80  G
     ATOM   2386   O16  GLC  G    1      83.746    5.589   12.703   1.00  43.50  G
     ATOM   2387   O12  GLC  G    5      86.722   -2.593    0.107   1.00  39.62  G
 20  ATOM   2388   C11  GLC  G    5      86.245   -1.364   -0.429   1.00  44.37  G
     ATOM   2389   C13  GLC  G    5      86.764   -0.193    0.394   1.00  44.36  G
     ATOM   2390   O14  GLC  G    5      86.355   -0.326    1.761   1.00  47.64  G
     ATOM   2391   C15  GLC  G    5      86.231    1.132   -0.195   1.00  45.11  G
     ATOM   2392   O16  GLC  G    5      86.666    1.310   -1.557   1.00  42.61  G
 25  ATOM   2393   O12  GLC  G    8      87.512    4.414   -5.278   1.00  38.37  G
     ATOM   2394   C11  GLC  G    8      86.362    5.220   -5.023   1.00  34.16  G
     ATOM   2395   C13  GLC  G    8      85.750    5.654   -6.351   1.00  35.54  G
     ATOM   2396   O14  GLC  G    8      86.717    6.392   -7.111   1.00  37.03  G
     ATOM   2397   C15  GLC  G    8      84.521    6.523   -6.082   1.00  35.46  G
 30  ATOM   2398   O16  GLC  G    8      83.948    6.931   -7.319   1.00  33.79  G
     ATOM   2399   C34  STO  L    1      82.178   19.404    9.614   1.00  23.98  L
     ATOM   2400   O33  STO  L    1      83.091   19.645   10.691   1.00  24.40  L
     ATOM   2401   C25  STO  L    1      82.557   20.621   11.610   1.00  19.84  L
     ATOM   2402   C26  STO  L    1      83.748   21.455   12.055   1.00  20.35  L
 35  ATOM   2403   N31  STO  L    1      84.251   22.242   10.916   1.00  22.56  L
     ATOM   2404   C32  STO  L    1      83.716   23.544   10.481   1.00  20.91  L
     ATOM   2405   C27  STO  L    1      84.847   20.523   12.559   1.00  19.37  L
     ATOM   2406   C28  STO  L    1      84.278   19.595   13.658   1.00  18.70  L
     ATOM   2407   O29  STO  L    1      82.889   19.845   13.980   1.00  20.08  L
 40  ATOM   2408   C24  STO  L    1      81.939   19.930   12.872   1.00  21.85  L
     ATOM   2409   C35  STO  L    1      80.791   20.824   13.403   1.00  20.12  L
     ATOM   2410   N6   STO  L    1      81.456   18.689   12.528   1.00  19.30  L
     ATOM   2411   C5   STO  L    1      80.172   18.450   12.023   1.00  16.04  L
     ATOM   2412   C4   STO  L    1      79.039   19.219   11.690   1.00  14.17  L
 45  ATOM   2413   C3   STO  L    1      77.901   18.569   11.148   1.00  14.32  L
     ATOM   2414   C2   STO  L    1      77.899   17.158   10.946   1.00  14.05  L
     ATOM   2415   C1   STO  L    1      79.035   16.386   11.282   1.00  13.54  L
     ATOM   2416   C23  STO  L    1      80.154   17.053   11.812   1.00  16.42  L
     ATOM   2417   C22  STO  L    1      81.361   16.522   12.164   1.00  17.74  L
 50  ATOM   2418   C7   STO  L    1      82.162   17.525   12.606   1.00  18.84  L
     ATOM   2419   C8   STO  L    1      83.501   17.279   12.972   1.00  18.69  L
     ATOM   2420   N9   STO  L    1      84.462   18.150   13.376   1.00  19.59  L
     ATOM   2421   C10  STO  L    1      85.663   17.477   13.561   1.00  19.11  L
     ATOM   2422   C11  STO  L    1      86.968   17.838   13.942   1.00  16.81  L
 55  ATOM   2423   C12  STO  L    1      87.961   16.831   14.007   1.00  20.66  L
     ATOM   2424   C13  STO  L    1      87.645   15.476   13.689   1.00  20.30  L
     ATOM   2425   C14  STO  L    1      86.329   15.117   13.306   1.00  19.66  L
     ATOM   2426   C15  STO  L    1      85.364   16.127   13.248   1.00  18.74  L
     ATOM   2427   C16  STO  L    1      84.049   16.022   12.899   1.00  19.21  L
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      ATOM   2428  C17  STO  L     1      83.217  14.936  12.440  1.00 18.26  L
      ATOM   2429  C21  STO  L     1      81.934  15.217  12.098  1.00 17.21  L
      ATOM   2430  C20  STO  L     1      81.325  14.098  11.689  1.00 17.68  L
      ATOM   2431  N19  STO  L     1      82.281  13.080  11.786  1.00 13.64  L
   5  ATOM   2432  C18  STO  L     1      83.457  13.603  12.261  1.00 16.89  L
      ATOM   2433  O30  STO  L     1      84.493  12.981  12.504  1.00 15.41  L
      ATOM   2434  S    SO4  I     1      64.914   7.877  16.247  1.00 82.11  I
      ATOM   2435  O1   SO4  I     1      63.624   8.415  15.778  1.00 82.68  I
      ATOM   2436  O2   SO4  I     1      65.841   8.992  16.520  1.00 82.73  I
  10  ATOM   2437  O3   SO4  I     1      65.479   7.010  15.198  1.00 83.33  I
      ATOM   2438  O4   SO4  I     1      64.709   7.088  17.477  1.00 82.04  I
      ATOM   2439  S    SO4  I     2      68.379  -7.029  19.810  1.00112.82  I
      ATOM   2440  O1   SO4  I     2      66.992  -6.526  19.786  1.00112.60  I
      ATOM   2441  O2   SO4  I     2      68.850  -7.226  18.425  1.00112.21  I
  15  ATOM   2442  O3   SO4  I     2      68.426  -8.312  20.538  1.00112.24  I
      ATOM   2443  O4   SO4  I     2      69.249  -6.051  20.491  1.00112.72  I
      ATOM   2444  S    SO4  I     3      84.927  -1.874  12.302  1.00 79.99  I
      ATOM   2445  O1   SO4  I     3      84.408  -1.334  13.568  1.00 79.90  I
      ATOM   2446  O2   SO4  I     3      84.442  -1.050  11.178  1.00 80.43  I
  20  ATOM   2447  O3   SO4  I     3      84.453  -3.263  12.131  1.00 79.92  I
      ATOM   2448  O4   SO4  I     3      86.402  -1.845  12.326  1.00 80.52  I
      ATOM   2449  S    SO4  I     4      80.577   9.632  30.033  1.00 98.23  I
      ATOM   2450  O1   SO4  I     4      79.725   9.060  28.972  1.00 96.88  I
      ATOM   2451  O2   SO4  I     4      82.000   9.461  29.683  1.00 97.80  I
  25  ATOM   2452  O3   SO4  I     4      80.304   8.944  31.309  1.00 98.08  I
      ATOM   2453  O4   SO4  I     4      80.281  11.069  30.178  1.00 98.08  I
      ATOM   2454  S    SO4  I     5      89.310   6.131  25.915  1.00110.86  I
      ATOM   2455  O1   SO4  I     5      89.025   6.456  27.331  1.00110.48  I
      ATOM   2456  O2   SO4  I     5      88.042   6.095  25.151  1.00110.12  I
  30  ATOM   2457  O3   SO4  I     5      89.970   4.810  25.844  1.00110.72  I
      ATOM   2458  O4   SO4  I     5      90.205   7.155  25.330  1.00110.02  I
      ATOM   2459  O2   PO4  P   100      64.527  26.252   2.299  1.00 88.98  P
      ATOM   2460  O3   PO4  P   100      66.482  25.155   1.367  1.00 88.39  P
      ATOM   2461  O4   PO4  P   100      66.688  26.504   3.376  1.00 87.87  P
  35  ATOM   2462  O1   PO4  P   100      66.264  27.565   1.240  1.00 88.80  P
      ATOM   2463  P    PO4  P   100      65.992  26.368   2.070  1.00 88.61  P
      ATOM   2464  CB   LEU      145      73.932   8.398   8.961  0.50 21.29  AC2
      ATOM   2465  CG   LEU      145      72.901   8.606  10.076  0.50 21.65  AC2
      ATOM   2466  CD1  LEU      145      71.904   9.671   9.655  0.50 21.60  AC2
  40  ATOM   2467  CD2  LEU      145      72.195   7.298  10.388  0.50 19.61  AC2
      ATOM   2468  CB   ASN      214      88.968   8.625   7.173  0.50 22.34  AC2
      ATOM   2469  CG   ASN      214      89.705   8.084   5.975  0.50 22.01  AC2
      ATOM   2470  OD1  ASN      214      89.240   7.153   5.320  0.50 22.82  AC2
      ATOM   2471  ND2  ASN      214      90.859   8.660   5.678  0.50 22.69  AC2
  45  ATOM   2472  CB   ASP      216      93.187   5.546   5.379  0.50 25.98  AC2
      ATOM   2473  CG   ASP      216      91.789   5.828   4.895  0.50 27.09  AC2
      ATOM   2474  OD1  ASP      216      91.587   6.896   4.290  0.50 28.49  AC2
      ATOM   2475  OD2  ASP      216      90.896   4.982   5.110  0.50 28.20  AC2
      END
```

Example 8: Co-ordinates for PDK1 fragment co-crystallised with UCN-01

```
     REMARK coordinates from restrained individual B-factor refinement
     REMARK refinement resolution: 25.0 - 2.50 A
 5   REMARK starting r= 0.1919 free_r= 0.2582
     REMARK final    r= 0.1894 free_r= 0.2567
     REMARK B rmsd for bonded mainchain atoms=  1.412  target= 1.5
     REMARK B rmsd for bonded sidechain atoms=  2.205  target= 2.0
     REMARK B rmsd for angle mainchain atoms=   2.401  target= 2.0
10   REMARK B rmsd for angle sidechain atoms=   3.256  target= 2.5
     REMARK rweight=  0.1000 (with wa= 3.1611)
     REMARK target= mlf   steps= 30
     REMARK sg= P3(2)21 a= 123.387 b= 123.387 c= 47.115 alpha= 90 beta=
     90 gamma= 120
15   REMARK parameter file 1  : /dd1/david/refinement/MY_CNS/prot.par
     REMARK parameter file 2  : /dd1/david/refinement/MY_CNS/ucn01.par
     REMARK parameter file 3  : CNS_TOPPAR:water_rep.param
     REMARK parameter file 4  : CNS_TOPPAR:ion.param
     REMARK parameter file 5  :
20   /dd1/david/refinement/MY_CNS/glycerol.par
     REMARK molecular structure file: ../generate/generate.mtf
     REMARK input coordinates: ../minimize/minimize.pdb
     REMARK reflection file= ../../../data/cns.hkl
     REMARK ncs= none
25   REMARK B-correction resolution: 6.0 - 2.50
     REMARK initial B-factor correction applied to fobs :
     REMARK   B11= -4.722 B22= -4.722 B33=  9.444
     REMARK   B12= -3.572 B13=  0.000 B23=  0.000
     REMARK B-factor correction applied to coordinate array B:  -0.193
30   REMARK  bulk  solvent: density  level=  0.3837  e/A^3,  B-factor=
     40.9071 A^2
     REMARK reflections with |Fobs|/sigma_F < 0.0 rejected
     REMARK reflections with |Fobs| > 10000 * rms(Fobs) rejected
     REMARK theoretical total number of refl. in resol. range:  14485 (
35   100.0 % )
     REMARK  number  of  unobserved  reflections  (no  entry  or  |F|=0):
     101 (   0.7 % )
     REMARK number of reflections rejected:        0 (   0.0 % )
     REMARK total number of reflections used:      14384 (  99.3 % )
40   REMARK number of reflections in working set: 13795 (  95.2 % )
     REMARK number of reflections in test set:      589 (   4.1 % )
     CRYST1  123.387  123.387   47.115  90.00  90.00 120.00 P 32 2 1
     REMARK FILENAME="bindividual.pdb"
     REMARK DATE:25-Mar-2003  17:21:21      created by user: david
45   REMARK VERSION:1.0
     ATOM     1  CB  ALA A  73     67.051  -3.293  12.591  1.00 59.77 A
     ATOM     2  C   ALA A  73     67.941  -4.753  14.416  1.00 61.14 A
     ATOM     3  O   ALA A  73     67.184  -5.270  15.240  1.00 61.61 A
     ATOM     4  N   ALA A  73     66.523  -5.729  12.643  1.00 58.89 A
50   ATOM     5  CA  ALA A  73     67.564  -4.697  12.943  1.00 60.69 A
     ATOM     6  N   PRO A  74     69.130  -4.241  14.770  1.00 61.63 A
     ATOM     7  CD  PRO A  74     70.264  -3.830  13.918  1.00 61.72 A
     ATOM     8  CA  PRO A  74     69.514  -4.278  16.187  1.00 61.34 A
     ATOM     9  CB  PRO A  74     70.918  -3.663  16.181  1.00 61.79 A
55   ATOM    10  CG  PRO A  74     71.458  -4.072  14.818  1.00 61.47 A
     ATOM    11  C   PRO A  74     68.523  -3.481  17.047  1.00 60.16 A
     ATOM    12  O   PRO A  74     67.625  -2.817  16.519  1.00 60.77 A
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        ATOM   13   N    ALA A  75    68.680   -3.562  18.368  1.00  58.13 A
        ATOM   14   CA   ALA A  75    67.815   -2.828  19.292  1.00  54.74 A
        ATOM   15   CB   ALA A  75    68.048   -3.309  20.731  1.00  54.90 A
        ATOM   16   C    ALA A  75    68.175   -1.349  19.177  1.00  51.85 A
  5     ATOM   17   O    ALA A  75    69.313   -1.005  18.851  1.00  52.46 A
        ATOM   18   N    LYS A  76    67.215   -0.473  19.427  1.00  46.96 A
        ATOM   19   CA   LYS A  76    67.507    0.947  19.354  1.00  43.72 A
        ATOM   20   CB   LYS A  76    66.270    1.756  19.744  1.00  42.81 A
        ATOM   21   CG   LYS A  76    66.177    3.116  19.087  1.00  41.81 A
 10     ATOM   22   CD   LYS A  76    65.926    2.983  17.590  1.00  40.56 A
        ATOM   23   CE   LYS A  76    65.691    4.343  16.943  1.00  42.58 A
        ATOM   24   NZ   LYS A  76    65.362    4.231  15.495  1.00  42.73 A
        ATOM   25   C    LYS A  76    68.639    1.218  20.351  1.00  41.25 A
        ATOM   26   O    LYS A  76    68.599    0.741  21.488  1.00  41.68 A
 15     ATOM   27   N    LYS A  77    69.655    1.960  19.936  1.00  37.68 A
        ATOM   28   CA   LYS A  77    70.748    2.255  20.849  1.00  35.10 A
        ATOM   29   CB   LYS A  77    72.016    2.619  20.074  1.00  34.13 A
        ATOM   30   CG   LYS A  77    72.427    1.570  19.053  1.00  32.68 A
        ATOM   31   CD   LYS A  77    73.927    1.537  18.858  1.00  33.90 A
 20     ATOM   32   CE   LYS A  77    74.366    0.471  17.849  1.00  31.40 A
        ATOM   33   NZ   LYS A  77    73.796   -0.863  18.164  1.00  34.76 A
        ATOM   34   C    LYS A  77    70.313    3.408  21.743  1.00  34.79 A
        ATOM   35   O    LYS A  77    69.319    4.077  21.458  1.00  34.20 A
        ATOM   36   N    ARG A  78    71.023    3.626  22.845  1.00  34.88 A
 25     ATOM   37   CA   ARG A  78    70.687    4.723  23.759  1.00  34.62 A
        ATOM   38   CB   ARG A  78    69.694    4.247  24.839  1.00  38.43 A
        ATOM   39   CG   ARG A  78    70.027    2.884  25.353  1.00  42.71 A
        ATOM   40   CD   ARG A  78    69.355    2.424  26.625  1.00  48.52 A
        ATOM   41   NE   ARG A  78    70.365    1.702  27.412  1.00  56.10 A
 30     ATOM   42   CZ   ARG A  78    70.428    0.355  27.518  1.00  57.88 A
        ATOM   43   NH1  ARG A  78    69.519   -0.397  26.838  1.00  58.45 A
        ATOM   44   NH2  ARG A  78    71.335   -0.195  28.369  1.00  59.23 A
        ATOM   45   C    ARG A  78    71.967    5.330  24.382  1.00  32.26 A
        ATOM   46   O    ARG A  78    73.066    4.777  24.278  1.00  31.42 A
 35     ATOM   47   N    PRO A  79    71.844    6.509  24.997  1.00  30.46 A
        ATOM   48   CD   PRO A  79    70.616    7.284  25.232  1.00  28.96 A
        ATOM   49   CA   PRO A  79    72.997    7.172  25.609  1.00  30.38 A
        ATOM   50   CB   PRO A  79    72.350    8.303  26.405  1.00  28.86 A
        ATOM   51   CG   PRO A  79    71.169    8.642  25.568  1.00  27.83 A
 40     ATOM   52   C    PRO A  79    73.889    6.287  26.468  1.00  29.47 A
        ATOM   53   O    PRO A  79    75.108    6.377  26.391  1.00  29.57 A
        ATOM   54   N    GLU A  80    73.268    5.435  27.279  1.00  29.77 A
        ATOM   55   CA   GLU A  80    73.975    4.533  28.179  1.00  29.55 A
        ATOM   56   CB   GLU A  80    72.980    3.768  29.043  1.00  32.88 A
 45     ATOM   57   CG   GLU A  80    71.996    4.643  29.798  1.00  40.36 A
        ATOM   58   CD   GLU A  80    71.014    5.367  28.879  1.00  44.21 A
        ATOM   59   OE1  GLU A  80    70.422    4.700  28.000  1.00  46.94 A
        ATOM   60   OE2  GLU A  80    70.828    6.598  29.038  1.00  45.47 A
        ATOM   61   C    GLU A  80    74.872    3.524  27.479  1.00  28.32 A
 50     ATOM   62   O    GLU A  80    75.709    2.894  28.126  1.00  28.20 A
        ATOM   63   N    ASP A  81    74.698    3.342  26.168  1.00  26.28 A
        ATOM   64   CA   ASP A  81    75.528    2.384  25.441  1.00  23.59 A
        ATOM   65   CB   ASP A  81    74.834    1.888  24.184  1.00  25.08 A
        ATOM   66   CG   ASP A  81    73.510    1.225  24.477  1.00  28.14 A
 55     ATOM   67   OD1  ASP A  81    73.369    0.625  25.578  1.00  29.12 A
        ATOM   68   OD2  ASP A  81    72.617    1.294  23.601  1.00  28.33 A
        ATOM   69   C    ASP A  81    76.856    2.967  25.046  1.00  23.24 A
        ATOM   70   O    ASP A  81    77.716    2.257  24.519  1.00  24.29 A
        ATOM   71   N    PHE A  82    77.036    4.259  25.309  1.00  21.34 A
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	ATOM	72	CA	PHE A	82	78.272	4.930	24.946	1.00	20.86 A
	ATOM	73	CB	PHE A	82	77.992	6.029	23.929	1.00	18.34 A
	ATOM	74	CG	PHE A	82	77.355	5.536	22.683	1.00	19.18 A
	ATOM	75	CD1	PHE A	82	78.138	5.099	21.610	1.00	19.28 A
5	ATOM	76	CD2	PHE A	82	75.974	5.462	22.588	1.00	17.82 A
	ATOM	77	CE1	PHE A	82	77.551	4.597	20.461	1.00	17.94 A
	ATOM	78	CE2	PHE A	82	75.371	4.961	21.449	1.00	19.08 A
	ATOM	79	CZ	PHE A	82	76.164	4.525	20.376	1.00	20.45 A
	ATOM	80	C	PHE A	82	78.982	5.555	26.105	1.00	21.71 A
10	ATOM	81	O	PHE A	82	78.418	5.739	27.173	1.00	24.82 A
	ATOM	82	N	LYS A	83	80.244	5.865	25.869	1.00	21.83 A
	ATOM	83	CA	LYS A	83	81.077	6.555	26.823	1.00	22.27 A
	ATOM	84	CB	LYS A	83	82.327	5.750	27.148	1.00	24.03 A
	ATOM	85	CG	LYS A	83	83.074	6.320	28.340	1.00	30.99 A
15	ATOM	86	CD	LYS A	83	84.465	6.827	27.993	1.00	35.16 A
	ATOM	87	CE	LYS A	83	85.465	5.683	27.945	1.00	39.06 A
	ATOM	88	NZ	LYS A	83	85.512	4.974	29.266	1.00	41.00 A
	ATOM	89	C	LYS A	83	81.462	7.775	25.998	1.00	22.51 A
	ATOM	90	O	LYS A	83	82.324	7.677	25.120	1.00	23.24 A
20	ATOM	91	N	PHE A	84	80.800	8.907	26.227	1.00	20.27 A
	ATOM	92	CA	PHE A	84	81.118	10.098	25.454	1.00	19.31 A
	ATOM	93	CB	PHE A	84	80.016	11.145	25.605	1.00	19.95 A
	ATOM	94	CG	PHE A	84	78.683	10.694	25.075	1.00	20.81 A
	ATOM	95	CD1	PHE A	84	77.855	9.879	25.835	1.00	21.62 A
25	ATOM	96	CD2	PHE A	84	78.278	11.035	23.804	1.00	20.47 A
	ATOM	97	CE1	PHE A	84	76.665	9.418	25.339	1.00	19.26 A
	ATOM	98	CE2	PHE A	84	77.073	10.568	23.300	1.00	18.97 A
	ATOM	99	CZ	PHE A	84	76.276	9.764	24.068	1.00	19.78 A
	ATOM	100	C	PHE A	84	82.463	10.680	25.863	1.00	19.58 A
30	ATOM	101	O	PHE A	84	82.888	10.540	26.998	1.00	20.60 A
	ATOM	102	N	GLY A	85	83.141	11.307	24.913	1.00	19.33 A
	ATOM	103	CA	GLY A	85	84.434	11.909	25.169	1.00	18.23 A
	ATOM	104	C	GLY A	85	84.480	13.368	24.743	1.00	19.96 A
	ATOM	105	O	GLY A	85	83.533	14.124	24.962	1.00	20.02 A
35	ATOM	106	N	LYS A	86	85.568	13.764	24.101	1.00	20.79 A
	ATOM	107	CA	LYS A	86	85.736	15.159	23.704	1.00	22.45 A
	ATOM	108	CB	LYS A	86	87.168	15.400	23.210	1.00	22.06 A
	ATOM	109	CG	LYS A	86	87.399	15.048	21.751	1.00	23.37 A
	ATOM	110	CD	LYS A	86	88.832	14.591	21.505	1.00	26.45 A
40	ATOM	111	CE	LYS A	86	89.451	15.275	20.294	1.00	30.25 A
	ATOM	112	NZ	LYS A	86	89.771	16.721	20.553	1.00	33.08 A
	ATOM	113	C	LYS A	86	84.750	15.668	22.661	1.00	21.50 A
	ATOM	114	O	LYS A	86	84.154	14.900	21.916	1.00	21.98 A
	ATOM	115	N	ILE A	87	84.582	16.985	22.647	1.00	20.15 A
45	ATOM	116	CA	ILE A	87	83.712	17.661	21.705	1.00	19.38 A
	ATOM	117	CB	ILE A	87	83.270	19.037	22.272	1.00	17.37 A
	ATOM	118	CG2	ILE A	87	82.724	19.935	21.163	1.00	15.07 A
	ATOM	119	CG1	ILE A	87	82.222	18.800	23.371	1.00	18.62 A
	ATOM	120	CD1	ILE A	87	81.848	20.025	24.190	1.00	16.91 A
50	ATOM	121	C	ILE A	87	84.549	17.836	20.436	1.00	19.85 A
	ATOM	122	O	ILE A	87	85.666	18.317	20.502	1.00	21.66 A
	ATOM	123	N	LEU A	88	84.030	17.406	19.293	1.00	19.65 A
	ATOM	124	CA	LEU A	88	84.771	17.539	18.047	1.00	20.20 A
	ATOM	125	CB	LEU A	88	84.423	16.405	17.078	1.00	18.76 A
55	ATOM	126	CG	LEU A	88	84.807	14.981	17.493	1.00	16.99 A
	ATOM	127	CD1	LEU A	88	84.122	13.995	16.570	1.00	13.92 A
	ATOM	128	CD2	LEU A	88	86.305	14.809	17.441	1.00	11.51 A
	ATOM	129	C	LEU A	88	84.429	18.861	17.407	1.00	20.87 A
	ATOM	130	O	LEU A	88	85.233	19.443	16.709	1.00	21.48 A

	ATOM	131	N	GLY	A	89	83.221	19.339	17.639	1.00	22.34	A
	ATOM	132	CA	GLY	A	89	82.856	20.601	17.043	1.00	25.87	A
	ATOM	133	C	GLY	A	89	81.476	21.057	17.451	1.00	29.45	A
	ATOM	134	O	GLY	A	89	80.673	20.292	17.990	1.00	29.48	A
5	ATOM	135	N	GLU	A	90	81.196	22.321	17.188	1.00	32.71	A
	ATOM	136	CA	GLU	A	90	79.904	22.864	17.530	1.00	37.61	A
	ATOM	137	CB	GLU	A	90	80.047	23.798	18.738	1.00	38.05	A
	ATOM	138	CG	GLU	A	90	80.123	22.998	20.037	1.00	42.04	A
	ATOM	139	CD	GLU	A	90	80.463	23.813	21.270	1.00	45.47	A
10	ATOM	140	OE1	GLU	A	90	81.662	24.137	21.477	1.00	47.26	A
	ATOM	141	OE2	GLU	A	90	79.524	24.119	22.041	1.00	47.39	A
	ATOM	142	C	GLU	A	90	79.277	23.565	16.349	1.00	40.01	A
	ATOM	143	O	GLU	A	90	79.972	24.148	15.518	1.00	42.05	A
	ATOM	144	N	GLY	A	91	77.962	23.440	16.240	1.00	42.05	A
15	ATOM	145	CA	GLY	A	91	77.238	24.102	15.174	1.00	43.15	A
	ATOM	146	C	GLY	A	91	76.276	25.035	15.892	1.00	45.06	A
	ATOM	147	O	GLY	A	91	76.317	25.149	17.134	1.00	43.58	A
	ATOM	148	N	SER	A	92	75.408	25.699	15.136	1.00	46.66	A
	ATOM	149	CA	SER	A	92	74.430	26.606	15.742	1.00	48.21	A
20	ATOM	150	CB	SER	A	92	73.754	27.462	14.660	1.00	51.13	A
	ATOM	151	OG	SER	A	92	73.601	26.741	13.439	1.00	54.79	A
	ATOM	152	C	SER	A	92	73.382	25.827	16.538	1.00	47.10	A
	ATOM	153	O	SER	A	92	73.055	26.190	17.678	1.00	49.44	A
	ATOM	154	N	PHE	A	93	72.874	24.743	15.957	1.00	44.39	A
25	ATOM	155	CA	PHE	A	93	71.866	23.942	16.648	1.00	41.99	A
	ATOM	156	CB	PHE	A	93	70.617	23.798	15.780	1.00	43.92	A
	ATOM	157	CG	PHE	A	93	70.434	24.919	14.814	1.00	47.66	A
	ATOM	158	CD1	PHE	A	93	70.689	24.729	13.455	1.00	49.35	A
	ATOM	159	CD2	PHE	A	93	70.061	26.185	15.264	1.00	49.16	A
30	ATOM	160	CE1	PHE	A	93	70.581	25.789	12.551	1.00	51.11	A
	ATOM	161	CE2	PHE	A	93	69.949	27.257	14.374	1.00	50.58	A
	ATOM	162	CZ	PHE	A	93	70.209	27.062	13.014	1.00	51.37	A
	ATOM	163	C	PHE	A	93	72.352	22.555	17.028	1.00	38.35	A
	ATOM	164	O	PHE	A	93	71.532	21.670	17.257	1.00	38.33	A
35	ATOM	165	N	SER	A	94	73.665	22.351	17.106	1.00	33.28	A
	ATOM	166	CA	SER	A	94	74.151	21.028	17.440	1.00	29.57	A
	ATOM	167	CB	SER	A	94	73.996	20.106	16.227	1.00	30.45	A
	ATOM	168	OG	SER	A	94	75.123	20.190	15.368	1.00	30.51	A
	ATOM	169	C	SER	A	94	75.588	20.952	17.936	1.00	27.66	A
40	ATOM	170	O	SER	A	94	76.369	21.893	17.803	1.00	27.25	A
	ATOM	171	N	THR	A	95	75.927	19.807	18.512	1.00	25.06	A
	ATOM	172	CA	THR	A	95	77.264	19.572	19.027	1.00	23.70	A
	ATOM	173	CB	THR	A	95	77.310	19.626	20.582	1.00	24.12	A
	ATOM	174	OG1	THR	A	95	76.801	20.886	21.044	1.00	25.68	A
45	ATOM	175	CG2	THR	A	95	78.731	19.458	21.073	1.00	22.92	A
	ATOM	176	C	THR	A	95	77.655	18.180	18.594	1.00	22.05	A
	ATOM	177	O	THR	A	95	76.860	17.250	18.673	1.00	21.43	A
	ATOM	178	N	VAL	A	96	78.883	18.029	18.129	1.00	21.52	A
	ATOM	179	CA	VAL	A	96	79.348	16.723	17.702	1.00	19.53	A
50	ATOM	180	CB	VAL	A	96	79.980	16.818	16.316	1.00	19.24	A
	ATOM	181	CG1	VAL	A	96	80.418	15.443	15.839	1.00	17.73	A
	ATOM	182	CG2	VAL	A	96	78.983	17.442	15.353	1.00	18.03	A
	ATOM	183	C	VAL	A	96	80.364	16.242	18.722	1.00	19.43	A
	ATOM	184	O	VAL	A	96	81.372	16.910	18.959	1.00	19.84	A
55	ATOM	185	N	VAL	A	97	80.099	15.082	19.324	1.00	17.90	A
	ATOM	186	CA	VAL	A	97	80.989	14.532	20.341	1.00	17.32	A
	ATOM	187	CB	VAL	A	97	80.283	14.438	21.736	1.00	18.35	A
	ATOM	188	CG1	VAL	A	97	79.581	15.750	22.066	1.00	20.10	A
	ATOM	189	CG2	VAL	A	97	79.234	13.357	21.713	1.00	23.78	A

	ATOM	190	C	VAL A	97	81.471	13.144	19.949	1.00	17.15	A
	ATOM	191	O	VAL A	97	80.727	12.351	19.379	1.00	18.17	A
	ATOM	192	N	LEU A	98	82.735	12.866	20.243	1.00	17.34	A
	ATOM	193	CA	LEU A	98	83.331	11.575	19.974	1.00	17.44	A
5	ATOM	194	CB	LEU A	98	84.853	11.689	19.990	1.00	17.84	A
	ATOM	195	CG	LEU A	98	85.656	10.407	19.737	1.00	18.59	A
	ATOM	196	CD1	LEU A	98	85.259	9.803	18.387	1.00	18.87	A
	ATOM	197	CD2	LEU A	98	87.151	10.738	19.772	1.00	16.62	A
	ATOM	198	C	LEU A	98	82.874	10.626	21.081	1.00	18.35	A
10	ATOM	199	O	LEU A	98	82.992	10.926	22.259	1.00	18.60	A
	ATOM	200	N	ALA A	99	82.340	9.476	20.697	1.00	19.15	A
	ATOM	201	CA	ALA A	99	81.888	8.513	21.675	1.00	19.73	A
	ATOM	202	CB	ALA A	99	80.383	8.534	21.759	1.00	17.97	A
	ATOM	203	C	ALA A	99	82.360	7.117	21.317	1.00	21.86	A
15	ATOM	204	O	ALA A	99	82.502	6.766	20.131	1.00	22.18	A
	ATOM	205	N	ARG A	100	82.631	6.324	22.345	1.00	21.93	A
	ATOM	206	CA	ARG A	100	83.025	4.963	22.102	1.00	23.29	A
	ATOM	207	CB	ARG A	100	84.333	4.637	22.805	1.00	25.99	A
	ATOM	208	CG	ARG A	100	84.870	3.271	22.388	1.00	31.56	A
20	ATOM	209	CD	ARG A	100	86.146	2.923	23.129	1.00	35.19	A
	ATOM	210	NE	ARG A	100	87.220	3.875	22.847	1.00	37.39	A
	ATOM	211	CZ	ARG A	100	87.958	3.870	21.740	1.00	38.05	A
	ATOM	212	NH1	ARG A	100	87.742	2.953	20.797	1.00	37.25	A
	ATOM	213	NH2	ARG A	100	88.918	4.780	21.580	1.00	36.22	A
25	ATOM	214	C	ARG A	100	81.904	4.060	22.603	1.00	22.07	A
	ATOM	215	O	ARG A	100	81.460	4.177	23.743	1.00	22.10	A
	ATOM	216	N	GLU A	101	81.417	3.189	21.734	1.00	21.29	A
	ATOM	217	CA	GLU A	101	80.357	2.262	22.119	1.00	22.87	A
	ATOM	218	CB	GLU A	101	79.747	1.631	20.867	1.00	23.10	A
30	ATOM	219	CG	GLU A	101	78.740	0.563	21.148	1.00	22.71	A
	ATOM	220	CD	GLU A	101	78.128	0.040	19.878	1.00	23.56	A
	ATOM	221	OE1	GLU A	101	78.892	−0.198	18.922	1.00	21.84	A
	ATOM	222	OE2	GLU A	101	76.890	−0.143	19.832	1.00	26.29	A
	ATOM	223	C	GLU A	101	80.942	1.176	23.037	1.00	21.56	A
35	ATOM	224	O	GLU A	101	81.884	0.485	22.666	1.00	20.69	A
	ATOM	225	N	LEU A	102	80.389	1.042	24.236	1.00	21.11	A
	ATOM	226	CA	LEU A	102	80.874	0.057	25.204	1.00	21.54	A
	ATOM	227	CB	LEU A	102	80.075	0.199	26.507	1.00	20.90	A
	ATOM	228	CG	LEU A	102	80.193	1.620	27.092	1.00	22.35	A
40	ATOM	229	CD1	LEU A	102	79.177	1.798	28.207	1.00	20.18	A
	ATOM	230	CD2	LEU A	102	81.600	1.866	27.608	1.00	17.47	A
	ATOM	231	C	LEU A	102	80.896	−1.415	24.729	1.00	20.27	A
	ATOM	232	O	LEU A	102	81.922	−2.078	24.825	1.00	21.63	A
	ATOM	233	N	ALA A	103	79.792	−1.922	24.201	1.00	18.37	A
45	ATOM	234	CA	ALA A	103	79.757	−3.307	23.731	1.00	20.54	A
	ATOM	235	CB	ALA A	103	78.333	−3.694	23.359	1.00	19.31	A
	ATOM	236	C	ALA A	103	80.688	−3.658	22.552	1.00	22.26	A
	ATOM	237	O	ALA A	103	81.002	−4.829	22.358	1.00	23.93	A
	ATOM	238	N	THR A	104	81.141	−2.677	21.775	1.00	20.79	A
50	ATOM	239	CA	THR A	104	81.972	−2.999	20.622	1.00	21.40	A
	ATOM	240	CB	THR A	104	81.279	−2.632	19.326	1.00	20.97	A
	ATOM	241	OG1	THR A	104	81.174	−1.205	19.259	1.00	23.21	A
	ATOM	242	CG2	THR A	104	79.891	−3.266	19.245	1.00	19.82	A
	ATOM	243	C	THR A	104	83.304	−2.300	20.569	1.00	23.57	A
55	ATOM	244	O	THR A	104	84.168	−2.687	19.796	1.00	23.41	A
	ATOM	245	N	SER A	105	83.454	−1.243	21.359	1.00	24.64	A
	ATOM	246	CA	SER A	105	84.687	−0.487	21.390	1.00	24.23	A
	ATOM	247	CB	SER A	105	85.855	−1.467	21.481	1.00	25.40	A
	ATOM	248	OG	SER A	105	87.074	−0.788	21.719	1.00	34.15	A

	ATOM	249	C	SER	A	105	84.819	0.454	20.163	1.00	23.42	A
	ATOM	250	O	SER	A	105	85.803	1.187	20.013	1.00	23.28	A
	ATOM	251	N	ARG	A	106	83.821	0.448	19.295	1.00	21.19	A
	ATOM	252	CA	ARG	A	106	83.850	1.323	18.115	1.00	22.25	A
5	ATOM	253	CB	ARG	A	106	82.754	0.922	17.118	1.00	24.82	A
	ATOM	254	CG	ARG	A	106	83.027	-0.343	16.349	1.00	25.20	A
	ATOM	255	CD	ARG	A	106	81.740	-0.942	15.884	1.00	25.19	A
	ATOM	256	NE	ARG	A	106	81.972	-1.900	14.815	1.00	26.11	A
	ATOM	257	CZ	ARG	A	106	81.042	-2.707	14.322	1.00	24.24	A
10	ATOM	258	NH1	ARG	A	106	79.805	-2.677	14.818	1.00	21.06	A
	ATOM	259	NH2	ARG	A	106	81.351	-3.513	13.315	1.00	20.25	A
	ATOM	260	C	ARG	A	106	83.655	2.806	18.433	1.00	19.79	A
	ATOM	261	O	ARG	A	106	82.836	3.175	19.266	1.00	18.73	A
	ATOM	262	N	GLU	A	107	84.404	3.646	17.736	1.00	19.82	A
15	ATOM	263	CA	GLU	A	107	84.294	5.086	17.903	1.00	21.14	A
	ATOM	264	CB	GLU	A	107	85.656	5.746	17.777	1.00	21.88	A
	ATOM	265	CG	GLU	A	107	86.562	5.428	18.926	1.00	26.09	A
	ATOM	266	CD	GLU	A	107	87.916	6.043	18.746	1.00	30.29	A
	ATOM	267	OE1	GLU	A	107	88.212	7.057	19.434	1.00	32.48	A
20	ATOM	268	OE2	GLU	A	107	88.678	5.512	17.901	1.00	31.98	A
	ATOM	269	C	GLU	A	107	83.358	5.693	16.870	1.00	20.50	A
	ATOM	270	O	GLU	A	107	83.474	5.429	15.676	1.00	20.70	A
	ATOM	271	N	TYR	A	108	82.415	6.498	17.347	1.00	20.38	A
	ATOM	272	CA	TYR	A	108	81.464	7.172	16.477	1.00	18.49	A
25	ATOM	273	CB	TYR	A	108	80.049	6.660	16.700	1.00	17.92	A
	ATOM	274	CG	TYR	A	108	79.828	5.247	16.238	1.00	23.37	A
	ATOM	275	CD1	TYR	A	108	79.598	4.964	14.886	1.00	22.79	A
	ATOM	276	CE1	TYR	A	108	79.357	3.648	14.458	1.00	23.56	A
	ATOM	277	CD2	TYR	A	108	79.820	4.180	17.154	1.00	21.34	A
30	ATOM	278	CE2	TYR	A	108	79.583	2.873	16.740	1.00	20.43	A
	ATOM	279	CZ	TYR	A	108	79.346	2.609	15.392	1.00	23.44	A
	ATOM	280	OH	TYR	A	108	79.061	1.321	14.972	1.00	24.10	A
	ATOM	281	C	TYR	A	108	81.478	8.635	16.828	1.00	18.53	A
	ATOM	282	O	TYR	A	108	81.778	9.011	17.971	1.00	17.37	A
35	ATOM	283	N	ALA	A	109	81.169	9.453	15.829	1.00	17.24	A
	ATOM	284	CA	ALA	A	109	81.053	10.885	16.006	1.00	15.98	A
	ATOM	285	CB	ALA	A	109	81.597	11.600	14.788	1.00	15.20	A
	ATOM	286	C	ALA	A	109	79.528	11.087	16.140	1.00	15.73	A
	ATOM	287	O	ALA	A	109	78.767	10.873	15.191	1.00	15.79	A
40	ATOM	288	N	ILE	A	110	79.070	11.474	17.320	1.00	14.95	A
	ATOM	289	CA	ILE	A	110	77.636	11.636	17.511	1.00	15.99	A
	ATOM	290	CB	ILE	A	110	77.188	10.940	18.815	1.00	15.51	A
	ATOM	291	CG2	ILE	A	110	75.697	11.126	19.039	1.00	14.44	A
	ATOM	292	CG1	ILE	A	110	77.541	9.452	18.729	1.00	16.63	A
45	ATOM	293	CD1	ILE	A	110	76.964	8.595	19.847	1.00	16.83	A
	ATOM	294	C	ILE	A	110	77.176	13.085	17.514	1.00	16.55	A
	ATOM	295	O	ILE	A	110	77.583	13.873	18.370	1.00	16.24	A
	ATOM	296	N	LYS	A	111	76.343	13.430	16.538	1.00	16.03	A
	ATOM	297	CA	LYS	A	111	75.804	14.777	16.430	1.00	18.21	A
50	ATOM	298	CB	LYS	A	111	75.341	15.065	14.997	1.00	19.36	A
	ATOM	299	CG	LYS	A	111	75.035	16.548	14.768	1.00	22.68	A
	ATOM	300	CD	LYS	A	111	74.461	16.844	13.396	1.00	23.67	A
	ATOM	301	CE	LYS	A	111	74.876	18.222	12.930	1.00	23.18	A
	ATOM	302	NZ	LYS	A	111	73.744	18.938	12.304	1.00	28.83	A
55	ATOM	303	C	LYS	A	111	74.608	14.866	17.383	1.00	17.40	A
	ATOM	304	O	LYS	A	111	73.646	14.115	17.239	1.00	18.27	A
	ATOM	305	N	ILE	A	112	74.672	15.781	18.344	1.00	15.41	A
	ATOM	306	CA	ILE	A	112	73.609	15.938	19.331	1.00	16.56	A
	ATOM	307	CB	ILE	A	112	74.194	15.819	20.777	1.00	17.09	A

	ATOM	308	CG2	ILE	A	112	73.073	15.926	21.830	1.00	11.60	A
	ATOM	309	CG1	ILE	A	112	74.957	14.480	20.885	1.00	16.81	A
	ATOM	310	CD1	ILE	A	112	75.771	14.262	22.178	1.00	15.96	A
	ATOM	311	C	ILE	A	112	72.876	17.261	19.158	1.00	17.98	A
5	ATOM	312	O	ILE	A	112	73.504	18.314	18.965	1.00	16.70	A
	ATOM	313	N	LEU	A	113	71.546	17.198	19.195	1.00	19.61	A
	ATOM	314	CA	LEU	A	113	70.711	18.393	19.034	1.00	21.99	A
	ATOM	315	CB	LEU	A	113	70.058	18.434	17.641	1.00	22.17	A
	ATOM	316	CG	LEU	A	113	70.906	18.273	16.367	1.00	22.83	A
10	ATOM	317	CD1	LEU	A	113	71.124	16.792	16.059	1.00	22.72	A
	ATOM	318	CD2	LEU	A	113	70.191	18.912	15.206	1.00	21.97	A
	ATOM	319	C	LEU	A	113	69.612	18.419	20.088	1.00	24.22	A
	ATOM	320	O	LEU	A	113	69.062	17.378	20.469	1.00	24.61	A
	ATOM	321	N	GLU	A	114	69.285	19.615	20.559	1.00	27.06	A
15	ATOM	322	CA	GLU	A	114	68.247	19.759	21.567	1.00	28.93	A
	ATOM	323	CB	GLU	A	114	68.586	20.926	22.488	1.00	31.39	A
	ATOM	324	CG	GLU	A	114	67.671	21.026	23.684	1.00	39.92	A
	ATOM	325	CD	GLU	A	114	67.676	22.406	24.300	1.00	45.42	A
	ATOM	326	OE1	GLU	A	114	67.160	23.356	23.655	1.00	46.90	A
20	ATOM	327	OE2	GLU	A	114	68.204	22.540	25.429	1.00	50.09	A
	ATOM	328	C	GLU	A	114	66.887	19.978	20.892	1.00	29.21	A
	ATOM	329	O	GLU	A	114	66.679	20.969	20.177	1.00	29.53	A
	ATOM	330	N	LYS	A	115	65.962	19.051	21.116	1.00	28.74	A
	ATOM	331	CA	LYS	A	115	64.642	19.152	20.507	1.00	29.44	A
25	ATOM	332	CB	LYS	A	115	63.744	18.002	20.987	1.00	28.12	A
	ATOM	333	CG	LYS	A	115	63.827	16.758	20.103	1.00	28.47	A
	ATOM	334	CD	LYS	A	115	63.026	15.571	20.639	1.00	27.07	A
	ATOM	335	CE	LYS	A	115	63.738	14.854	21.779	1.00	28.88	A
	ATOM	336	NZ	LYS	A	115	62.963	13.672	22.282	1.00	26.42	A
30	ATOM	337	C	LYS	A	115	63.947	20.502	20.724	1.00	29.72	A
	ATOM	338	O	LYS	A	115	63.310	21.025	19.799	1.00	30.03	A
	ATOM	339	N	ALA	A	116	64.082	21.091	21.910	1.00	28.83	A
	ATOM	340	CA	ALA	A	116	63.407	22.365	22.159	1.00	29.91	A
	ATOM	341	CB	ALA	A	116	63.470	22.749	23.647	1.00	28.16	A
35	ATOM	342	C	ALA	A	116	63.976	23.480	21.311	1.00	30.93	A
	ATOM	343	O	ALA	A	116	63.231	24.217	20.667	1.00	32.28	A
	ATOM	344	N	HIS	A	117	65.297	23.593	21.292	1.00	31.66	A
	ATOM	345	CA	HIS	A	117	65.951	24.645	20.523	1.00	32.13	A
	ATOM	346	CB	HIS	A	117	67.472	24.571	20.728	1.00	34.12	A
40	ATOM	347	CG	HIS	A	117	68.219	25.741	20.169	1.00	37.74	A
	ATOM	348	CD2	HIS	A	117	67.794	26.959	19.761	1.00	39.67	A
	ATOM	349	ND1	HIS	A	117	69.582	25.727	19.966	1.00	42.04	A
	ATOM	350	CE1	HIS	A	117	69.965	26.884	19.454	1.00	41.07	A
	ATOM	351	NE2	HIS	A	117	68.899	27.649	19.320	1.00	40.56	A
45	ATOM	352	C	HIS	A	117	65.600	24.547	19.040	1.00	31.36	A
	ATOM	353	O	HIS	A	117	65.466	25.560	18.350	1.00	32.37	A
	ATOM	354	N	ILE	A	118	65.430	23.330	18.544	1.00	30.26	A
	ATOM	355	CA	ILE	A	118	65.102	23.158	17.132	1.00	29.28	A
	ATOM	356	CB	ILE	A	118	65.266	21.696	16.712	1.00	27.64	A
50	ATOM	357	CG2	ILE	A	118	64.560	21.439	15.401	1.00	22.46	A
	ATOM	358	CG1	ILE	A	118	66.756	21.371	16.642	1.00	27.22	A
	ATOM	359	CD1	ILE	A	118	67.036	19.917	16.437	1.00	30.51	A
	ATOM	360	C	ILE	A	118	63.688	23.618	16.816	1.00	30.41	A
	ATOM	361	O	ILE	A	118	63.444	24.251	15.785	1.00	29.55	A
55	ATOM	362	N	ILE	A	119	62.756	23.291	17.705	1.00	29.59	A
	ATOM	363	CA	ILE	A	119	61.376	23.682	17.497	1.00	29.18	A
	ATOM	364	CB	ILE	A	119	60.447	22.979	18.506	1.00	27.15	A
	ATOM	365	CG2	ILE	A	119	59.071	23.623	18.486	1.00	22.69	A
	ATOM	366	CG1	ILE	A	119	60.394	21.486	18.173	1.00	23.45	A

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     ATOM  367  CD1  ILE A 119    59.666  20.665  19.173  1.00  19.08 A
     ATOM  368  C    ILE A 119    61.223  25.194  17.617  1.00  30.65 A
     ATOM  369  O    ILE A 119    60.574  25.832  16.786  1.00  30.59 A
     ATOM  370  N    ALA A 120    61.837  25.768  18.642  1.00  31.95 A
  5  ATOM  371  CA   ALA A 120    61.752  27.205  18.848  1.00  33.69 A
     ATOM  372  CB   ALA A 120    62.473  27.608  20.150  1.00  33.17 A
     ATOM  373  C    ALA A 120    62.330  27.973  17.671  1.00  34.80 A
     ATOM  374  O    ALA A 120    61.865  29.067  17.362  1.00  37.34 A
     ATOM  375  N    GLU A 121    63.328  27.413  16.997  1.00  35.09 A
 10  ATOM  376  CA   GLU A 121    63.941  28.116  15.872  1.00  35.31 A
     ATOM  377  CB   GLU A 121    65.453  27.927  15.933  1.00  39.72 A
     ATOM  378  CG   GLU A 121    66.103  28.735  17.038  1.00  45.91 A
     ATOM  379  CD   GLU A 121    65.955  30.225  16.784  1.00  49.51 A
     ATOM  380  OE1  GLU A 121    66.634  30.736  15.866  1.00  52.87 A
 15  ATOM  381  OE2  GLU A 121    65.148  30.879  17.482  1.00  51.35 A
     ATOM  382  C    GLU A 121    63.421  27.699  14.499  1.00  34.14 A
     ATOM  383  O    GLU A 121    63.964  28.109  13.468  1.00  31.41 A
     ATOM  384  N    ASN A 122    62.363  26.891  14.497  1.00  33.86 A
     ATOM  385  CA   ASN A 122    61.771  26.367  13.266  1.00  34.00 A
 20  ATOM  386  CB   ASN A 122    61.112  27.473  12.464  1.00  36.75 A
     ATOM  387  CG   ASN A 122    59.962  28.081  13.193  1.00  39.62 A
     ATOM  388  OD1  ASN A 122    60.148  28.788  14.185  1.00  39.90 A
     ATOM  389  ND2  ASN A 122    58.753  27.794  12.727  1.00  41.02 A
     ATOM  390  C    ASN A 122    62.798  25.686  12.397  1.00  31.78 A
 25  ATOM  391  O    ASN A 122    62.958  26.035  11.230  1.00  32.05 A
     ATOM  392  N    LYS A 123    63.494  24.714  12.965  1.00  28.71 A
     ATOM  393  CA   LYS A 123    64.508  24.008  12.217  1.00  29.39 A
     ATOM  394  CB   LYS A 123    65.842  24.036  12.974  1.00  31.70 A
     ATOM  395  CG   LYS A 123    66.434  25.416  13.132  1.00  33.49 A
 30  ATOM  396  CD   LYS A 123    66.612  26.076  11.763  1.00  37.43 A
     ATOM  397  CE   LYS A 123    67.174  27.491  11.898  1.00  38.52 A
     ATOM  398  NZ   LYS A 123    67.337  28.176  10.582  1.00  37.85 A
     ATOM  399  C    LYS A 123    64.116  22.572  11.931  1.00  28.30 A
     ATOM  400  O    LYS A 123    64.867  21.844  11.289  1.00  29.68 A
 35  ATOM  401  N    VAL A 124    62.944  22.162  12.404  1.00  26.80 A
     ATOM  402  CA   VAL A 124    62.484  20.796  12.175  1.00  26.73 A
     ATOM  403  CB   VAL A 124    61.024  20.593  12.622  1.00  26.31 A
     ATOM  404  CG1  VAL A 124    60.532  19.222  12.191  1.00  25.31 A
     ATOM  405  CG2  VAL A 124    60.918  20.720  14.134  1.00  26.73 A
 40  ATOM  406  C    VAL A 124    62.594  20.351  10.722  1.00  27.11 A
     ATOM  407  O    VAL A 124    62.973  19.218  10.450  1.00  29.79 A
     ATOM  408  N    PRO A 125    62.270  21.228   9.763  1.00  27.28 A
     ATOM  409  CD   PRO A 125    61.610  22.544   9.818  1.00  27.49 A
     ATOM  410  CA   PRO A 125    62.386  20.758   8.378  1.00  27.41 A
 45  ATOM  411  CB   PRO A 125    61.775  21.904   7.563  1.00  26.08 A
     ATOM  412  CG   PRO A 125    60.821  22.546   8.524  1.00  27.54 A
     ATOM  413  C    PRO A 125    63.837  20.506   8.006  1.00  27.90 A
     ATOM  414  O    PRO A 125    64.162  19.572   7.260  1.00  26.27 A
     ATOM  415  N    TYR A 126    64.703  21.350   8.550  1.00  28.64 A
 50  ATOM  416  CA   TYR A 126    66.123  21.271   8.288  1.00  30.11 A
     ATOM  417  CB   TYR A 126    66.791  22.528   8.809  1.00  36.70 A
     ATOM  418  CG   TYR A 126    66.440  23.774   8.013  1.00  44.64 A
     ATOM  419  CD1  TYR A 126    66.984  23.988   6.744  1.00  47.43 A
     ATOM  420  CE1  TYR A 126    66.737  25.173   6.037  1.00  50.16 A
 55  ATOM  421  CD2  TYR A 126    65.620  24.774   8.557  1.00  47.03 A
     ATOM  422  CE2  TYR A 126    65.369  25.955   7.861  1.00  49.52 A
     ATOM  423  CZ   TYR A 126    65.936  26.152   6.605  1.00  50.60 A
     ATOM  424  OH   TYR A 126    65.754  27.349   5.941  1.00  52.77 A
     ATOM  425  C    TYR A 126    66.794  20.041   8.874  1.00  28.69 A
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	ATOM	426	O	TYR	A	126	67.613	19.407	8.208	1.00	28.32	A
	ATOM	427	N	VAL	A	127	66.464	19.714	10.118	1.00	25.64	A
	ATOM	428	CA	VAL	A	127	67.033	18.550	10.766	1.00	24.89	A
	ATOM	429	CB	VAL	A	127	66.664	18.513	12.258	1.00	26.70	A
5	ATOM	430	CG1	VAL	A	127	67.158	17.206	12.881	1.00	22.51	A
	ATOM	431	CG2	VAL	A	127	67.255	19.743	12.972	1.00	23.84	A
	ATOM	432	C	VAL	A	127	66.521	17.276	10.097	1.00	24.81	A
	ATOM	433	O	VAL	A	127	67.260	16.315	9.890	1.00	24.02	A
	ATOM	434	N	THR	A	128	65.245	17.290	9.755	1.00	24.02	A
10	ATOM	435	CA	THR	A	128	64.608	16.164	9.088	1.00	24.59	A
	ATOM	436	CB	THR	A	128	63.123	16.471	8.843	1.00	25.38	A
	ATOM	437	OG1	THR	A	128	62.478	16.652	10.106	1.00	25.76	A
	ATOM	438	CG2	THR	A	128	62.451	15.354	8.066	1.00	22.88	A
	ATOM	439	C	THR	A	128	65.266	15.875	7.744	1.00	24.53	A
15	ATOM	440	O	THR	A	128	65.560	14.729	7.426	1.00	25.53	A
	ATOM	441	N	ARG	A	129	65.477	16.925	6.957	1.00	24.82	A
	ATOM	442	CA	ARG	A	129	66.099	16.812	5.646	1.00	25.49	A
	ATOM	443	CB	ARG	A	129	66.111	18.181	4.959	1.00	26.78	A
	ATOM	444	CG	ARG	A	129	66.648	18.175	3.529	1.00	32.33	A
20	ATOM	445	CD	ARG	A	129	66.579	19.563	2.878	1.00	36.93	A
	ATOM	446	NE	ARG	A	129	65.326	20.249	3.184	1.00	42.70	A
	ATOM	447	CZ	ARG	A	129	65.254	21.462	3.730	1.00	46.67	A
	ATOM	448	NH1	ARG	A	129	66.366	22.128	4.018	1.00	48.50	A
	ATOM	449	NH2	ARG	A	129	64.073	21.997	4.027	1.00	48.90	A
25	ATOM	450	C	ARG	A	129	67.532	16.296	5.801	1.00	26.46	A
	ATOM	451	O	ARG	A	129	68.002	15.456	5.020	1.00	24.76	A
	ATOM	452	N	GLU	A	130	68.216	16.795	6.825	1.00	25.56	A
	ATOM	453	CA	GLU	A	130	69.582	16.393	7.076	1.00	28.29	A
	ATOM	454	CB	GLU	A	130	70.118	17.106	8.310	1.00	27.95	A
30	ATOM	455	CG	GLU	A	130	71.591	16.875	8.539	1.00	29.48	A
	ATOM	456	CD	GLU	A	130	72.107	17.566	9.787	1.00	32.14	A
	ATOM	457	OE1	GLU	A	130	71.297	18.221	10.483	1.00	32.67	A
	ATOM	458	OE2	GLU	A	130	73.325	17.450	10.069	1.00	32.21	A
	ATOM	459	C	GLU	A	130	69.665	14.886	7.279	1.00	29.86	A
35	ATOM	460	O	GLU	A	130	70.498	14.200	6.668	1.00	29.35	A
	ATOM	461	N	ARG	A	131	68.797	14.382	8.150	1.00	30.84	A
	ATOM	462	CA	ARG	A	131	68.763	12.966	8.451	1.00	31.62	A
	ATOM	463	CB	ARG	A	131	67.786	12.684	9.598	1.00	33.12	A
	ATOM	464	CG	ARG	A	131	67.557	11.190	9.831	1.00	36.17	A
40	ATOM	465	CD	ARG	A	131	66.560	10.925	10.946	1.00	41.69	A
	ATOM	466	NE	ARG	A	131	66.330	9.492	11.166	1.00	46.62	A
	ATOM	467	CZ	ARG	A	131	65.692	8.986	12.224	1.00	48.29	A
	ATOM	468	NH1	ARG	A	131	65.215	9.795	13.165	1.00	49.51	A
	ATOM	469	NH2	ARG	A	131	65.544	7.671	12.352	1.00	48.76	A
45	ATOM	470	C	ARG	A	131	68.371	12.138	7.235	1.00	30.59	A
	ATOM	471	O	ARG	A	131	68.897	11.051	7.026	1.00	29.96	A
	ATOM	472	N	ASP	A	132	67.446	12.649	6.433	1.00	29.54	A
	ATOM	473	CA	ASP	A	132	67.000	11.913	5.259	1.00	29.40	A
	ATOM	474	CB	ASP	A	132	65.735	12.565	4.708	1.00	32.43	A
50	ATOM	475	CG	ASP	A	132	64.531	12.395	5.655	1.00	38.15	A
	ATOM	476	OD1	ASP	A	132	64.749	12.227	6.881	1.00	40.40	A
	ATOM	477	OD2	ASP	A	132	63.365	12.439	5.186	1.00	41.19	A
	ATOM	478	C	ASP	A	132	68.088	11.789	4.189	1.00	27.62	A
	ATOM	479	O	ASP	A	132	68.232	10.744	3.553	1.00	26.54	A
55	ATOM	480	N	VAL	A	133	68.862	12.850	4.011	1.00	25.14	A
	ATOM	481	CA	VAL	A	133	69.939	12.857	3.044	1.00	24.12	A
	ATOM	482	CB	VAL	A	133	70.451	14.272	2.833	1.00	24.07	A
	ATOM	483	CG1	VAL	A	133	71.802	14.247	2.143	1.00	23.77	A
	ATOM	484	CG2	VAL	A	133	69.461	15.030	2.008	1.00	24.30	A

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    ATOM    485  C   VAL A 133      71.099  11.975   3.504  1.00 24.97 A
    ATOM    486  O   VAL A 133      71.672  11.221   2.712  1.00 24.95 A
    ATOM    487  N   MET A 134      71.458  12.074   4.779  1.00 23.41 A
    ATOM    488  CA  MET A 134      72.539  11.255   5.268  1.00 23.12 A
 5  ATOM    489  CB  MET A 134      72.932  11.653   6.683  1.00 21.12 A
    ATOM    490  CG  MET A 134      73.608  13.005   6.759  1.00 21.21 A
    ATOM    491  SD  MET A 134      74.530  13.204   8.291  1.00 20.52 A
    ATOM    492  CE  MET A 134      73.172  13.347   9.534  1.00 17.71 A
    ATOM    493  C   MET A 134      72.163   9.783   5.237  1.00 24.75 A
10  ATOM    494  O   MET A 134      73.027   8.918   5.039  1.00 25.73 A
    ATOM    495  N   SER A 135      70.885   9.474   5.425  1.00 23.96 A
    ATOM    496  CA  SER A 135      70.484   8.064   5.408  1.00 24.82 A
    ATOM    497  CB  SER A 135      69.048   7.889   5.917  1.00 24.63 A
    ATOM    498  OG  SER A 135      68.139   8.496   5.015  1.00 29.80 A
15  ATOM    499  C   SER A 135      70.585   7.479   4.003  1.00 22.35 A
    ATOM    500  O   SER A 135      70.534   6.274   3.829  1.00 21.60 A
    ATOM    501  N   ARG A 136      70.729   8.335   3.004  1.00 21.91 A
    ATOM    502  CA  ARG A 136      70.815   7.858   1.631  1.00 23.76 A
    ATOM    503  CB  ARG A 136      69.988   8.762   0.714  1.00 25.55 A
20  ATOM    504  CG  ARG A 136      68.500   8.782   1.069  1.00 31.38 A
    ATOM    505  CD  ARG A 136      67.764   9.897   0.332  1.00 33.65 A
    ATOM    506  NE  ARG A 136      68.024   9.809  -1.099  1.00 38.77 A
    ATOM    507  CZ  ARG A 136      67.654  10.718  -1.996  1.00 41.27 A
    ATOM    508  NH1 ARG A 136      66.988  11.806  -1.604  1.00 42.53 A
25  ATOM    509  NH2 ARG A 136      67.971  10.544  -3.286  1.00 39.41 A
    ATOM    510  C   ARG A 136      72.248   7.789   1.131  1.00 22.64 A
    ATOM    511  O   ARG A 136      72.520   7.268   0.052  1.00 22.43 A
    ATOM    512  N   LEU A 137      73.168   8.318   1.919  1.00 22.66 A
    ATOM    513  CA  LEU A 137      74.568   8.307   1.535  1.00 22.60 A
30  ATOM    514  CB  LEU A 137      75.348   9.375   2.308  1.00 20.28 A
    ATOM    515  CG  LEU A 137      74.842  10.793   2.068  1.00 19.72 A
    ATOM    516  CD1 LEU A 137      75.695  11.816   2.840  1.00 17.83 A
    ATOM    517  CD2 LEU A 137      74.855  11.062   0.564  1.00 18.39 A
    ATOM    518  C   LEU A 137      75.195   6.950   1.775  1.00 22.60 A
35  ATOM    519  O   LEU A 137      75.203   6.445   2.892  1.00 23.75 A
    ATOM    520  N   ASP A 138      75.723   6.371   0.710  1.00 22.09 A
    ATOM    521  CA  ASP A 138      76.383   5.083   0.788  1.00 22.63 A
    ATOM    522  CB  ASP A 138      75.419   3.988   0.340  1.00 25.16 A
    ATOM    523  CG  ASP A 138      75.976   2.622   0.582  1.00 26.26 A
40  ATOM    524  OD1 ASP A 138      76.658   2.480   1.611  1.00 27.29 A
    ATOM    525  OD2 ASP A 138      75.740   1.708  -0.237  1.00 30.75 A
    ATOM    526  C   ASP A 138      77.617   5.112  -0.124  1.00 20.82 A
    ATOM    527  O   ASP A 138      77.656   4.445  -1.155  1.00 22.94 A
    ATOM    528  N   HIS A 139      78.612   5.902   0.250  1.00 16.77 A
45  ATOM    529  CA  HIS A 139      79.813   6.050  -0.557  1.00 16.21 A
    ATOM    530  CB  HIS A 139      79.614   7.180  -1.583  1.00 15.30 A
    ATOM    531  CG  HIS A 139      80.755   7.348  -2.534  1.00 16.37 A
    ATOM    532  CD2 HIS A 139      80.853   7.087  -3.860  1.00 15.32 A
    ATOM    533  ND1 HIS A 139      81.998   7.802  -2.139  1.00 17.12 A
50  ATOM    534  CE1 HIS A 139      82.811   7.810  -3.184  1.00 15.92 A
    ATOM    535  NE2 HIS A 139      82.140   7.380  -4.238  1.00 13.96 A
    ATOM    536  C   HIS A 139      80.985   6.371   0.357  1.00 16.70 A
    ATOM    537  O   HIS A 139      80.848   7.116   1.317  1.00 16.89 A
    ATOM    538  N   PRO A 140      82.164   5.823   0.056  1.00 16.94 A
55  ATOM    539  CD  PRO A 140      82.508   4.991  -1.108  1.00 17.10 A
    ATOM    540  CA  PRO A 140      83.334   6.079   0.895  1.00 17.98 A
    ATOM    541  CB  PRO A 140      84.390   5.163   0.291  1.00 17.03 A
    ATOM    542  CG  PRO A 140      84.003   5.114  -1.159  1.00 18.59 A
    ATOM    543  C   PRO A 140      83.822   7.528   1.070  1.00 18.59 A
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	ATOM	544	O	PRO	A	140	84.528	7.817	2.021	1.00	20.11	A
	ATOM	545	N	PHE	A	141	83.460	8.444	0.179	1.00	19.62	A
	ATOM	546	CA	PHE	A	141	83.909	9.833	0.345	1.00	18.34	A
	ATOM	547	CB	PHE	A	141	84.223	10.474	-1.010	1.00	17.53	A
5	ATOM	548	CG	PHE	A	141	85.440	9.880	-1.694	1.00	17.38	A
	ATOM	549	CD1	PHE	A	141	86.450	9.275	-0.938	1.00	17.01	A
	ATOM	550	CD2	PHE	A	141	85.579	9.926	-3.081	1.00	15.76	A
	ATOM	551	CE1	PHE	A	141	87.572	8.724	-1.550	1.00	16.13	A
	ATOM	552	CE2	PHE	A	141	86.707	9.375	-3.708	1.00	16.99	A
10	ATOM	553	CZ	PHE	A	141	87.705	8.772	-2.938	1.00	15.01	A
	ATOM	554	C	PHE	A	141	82.893	10.680	1.095	1.00	18.14	A
	ATOM	555	O	PHE	A	141	83.012	11.896	1.144	1.00	20.74	A
	ATOM	556	N	PHE	A	142	81.901	10.037	1.697	1.00	15.85	A
	ATOM	557	CA	PHE	A	142	80.887	10.761	2.444	1.00	15.95	A
15	ATOM	558	CB	PHE	A	142	79.558	10.757	1.690	1.00	15.20	A
	ATOM	559	CG	PHE	A	142	79.507	11.721	0.542	1.00	15.62	A
	ATOM	560	CD1	PHE	A	142	79.295	13.086	0.768	1.00	14.51	A
	ATOM	561	CD2	PHE	A	142	79.651	11.265	-0.771	1.00	12.05	A
	ATOM	562	CE1	PHE	A	142	79.222	13.991	-0.291	1.00	13.97	A
20	ATOM	563	CE2	PHE	A	142	79.582	12.157	-1.840	1.00	15.46	A
	ATOM	564	CZ	PHE	A	142	79.365	13.536	-1.601	1.00	14.89	A
	ATOM	565	C	PHE	A	142	80.654	10.167	3.824	1.00	15.60	A
	ATOM	566	O	PHE	A	142	80.886	8.986	4.061	1.00	15.39	A
	ATOM	567	N	VAL	A	143	80.182	11.001	4.733	1.00	15.87	A
25	ATOM	568	CA	VAL	A	143	79.878	10.564	6.075	1.00	15.04	A
	ATOM	569	CB	VAL	A	143	79.304	11.727	6.905	1.00	15.26	A
	ATOM	570	CG1	VAL	A	143	78.012	12.231	6.276	1.00	11.03	A
	ATOM	571	CG2	VAL	A	143	79.100	11.296	8.350	1.00	14.40	A
	ATOM	572	C	VAL	A	143	78.828	9.479	5.935	1.00	15.52	A
30	ATOM	573	O	VAL	A	143	78.076	9.453	4.963	1.00	15.45	A
	ATOM	574	N	LYS	A	144	78.794	8.580	6.907	1.00	16.29	A
	ATOM	575	CA	LYS	A	144	77.848	7.482	6.933	1.00	17.45	A
	ATOM	576	CB	LYS	A	144	78.625	6.150	6.895	1.00	18.05	A
	ATOM	577	CG	LYS	A	144	77.963	4.967	7.596	1.00	24.34	A
35	ATOM	578	CD	LYS	A	144	76.922	4.263	6.752	1.00	26.35	A
	ATOM	579	CE	LYS	A	144	77.461	2.926	6.213	1.00	30.22	A
	ATOM	580	NZ	LYS	A	144	77.576	1.882	7.271	1.00	28.27	A
	ATOM	581	C	LYS	A	144	77.024	7.626	8.222	1.00	17.39	A
	ATOM	582	O	LYS	A	144	77.565	7.913	9.284	1.00	16.92	A
40	ATOM	583	N	LEU	A	145	75.711	7.458	8.116	1.00	17.41	A
	ATOM	584	CA	LEU	A	145	74.836	7.549	9.274	1.00	18.13	A
	ATOM	585	CB	LEU	A	145	73.514	8.210	8.893	1.00	18.86	A
	ATOM	586	CG	LEU	A	145	72.612	8.850	9.964	1.00	20.13	A
	ATOM	587	CD1	LEU	A	145	71.157	8.607	9.582	1.00	19.48	A
45	ATOM	588	CD2	LEU	A	145	72.900	8.311	11.331	1.00	17.86	A
	ATOM	589	C	LEU	A	145	74.559	6.113	9.689	1.00	18.85	A
	ATOM	590	O	LEU	A	145	73.905	5.379	8.954	1.00	20.15	A
	ATOM	591	N	TYR	A	146	75.030	5.713	10.867	1.00	18.09	A
	ATOM	592	CA	TYR	A	146	74.830	4.341	11.329	1.00	15.93	A
50	ATOM	593	CB	TYR	A	146	76.013	3.871	12.154	1.00	14.52	A
	ATOM	594	CG	TYR	A	146	77.295	3.776	11.390	1.00	13.98	A
	ATOM	595	CD1	TYR	A	146	78.093	4.907	11.193	1.00	15.01	A
	ATOM	596	CE1	TYR	A	146	79.329	4.815	10.548	1.00	14.94	A
	ATOM	597	CD2	TYR	A	146	77.752	2.541	10.912	1.00	14.36	A
55	ATOM	598	CE2	TYR	A	146	78.984	2.426	10.266	1.00	15.47	A
	ATOM	599	CZ	TYR	A	146	79.770	3.566	10.090	1.00	15.70	A
	ATOM	600	OH	TYR	A	146	80.999	3.473	9.491	1.00	16.29	A
	ATOM	601	C	TYR	A	146	73.591	4.135	12.154	1.00	16.74	A
	ATOM	602	O	TYR	A	146	73.004	3.050	12.132	1.00	17.63	A

	ATOM	603	N	PHE	A	147	73.198	5.158	12.901	1.00	15.90	A
	ATOM	604	CA	PHE	A	147	72.012	5.041	13.745	1.00	17.10	A
	ATOM	605	CB	PHE	A	147	72.265	4.057	14.932	1.00	14.80	A
	ATOM	606	CG	PHE	A	147	73.509	4.366	15.747	1.00	16.36	A
5	ATOM	607	CD1	PHE	A	147	73.526	5.427	16.657	1.00	15.38	A
	ATOM	608	CD2	PHE	A	147	74.701	3.663	15.514	1.00	16.83	A
	ATOM	609	CE1	PHE	A	147	74.709	5.801	17.314	1.00	15.96	A
	ATOM	610	CE2	PHE	A	147	75.907	4.024	16.163	1.00	16.65	A
	ATOM	611	CZ	PHE	A	147	75.908	5.107	17.069	1.00	16.96	A
10	ATOM	612	C	PHE	A	147	71.550	6.378	14.286	1.00	17.73	A
	ATOM	613	O	PHE	A	147	72.225	7.399	14.145	1.00	18.47	A
	ATOM	614	N	THR	A	148	70.376	6.352	14.897	1.00	19.28	A
	ATOM	615	CA	THR	A	148	69.801	7.529	15.532	1.00	19.50	A
	ATOM	616	CB	THR	A	148	68.846	8.308	14.597	1.00	19.24	A
15	ATOM	617	OG1	THR	A	148	67.722	7.485	14.271	1.00	18.29	A
	ATOM	618	CG2	THR	A	148	69.563	8.727	13.311	1.00	18.53	A
	ATOM	619	C	THR	A	148	68.976	7.071	16.718	1.00	19.68	A
	ATOM	620	O	THR	A	148	68.556	5.915	16.802	1.00	20.20	A
	ATOM	621	N	PHE	A	149	68.765	7.975	17.653	1.00	20.20	A
20	ATOM	622	CA	PHE	A	149	67.926	7.687	18.797	1.00	20.34	A
	ATOM	623	CB	PHE	A	149	68.558	6.626	19.728	1.00	19.06	A
	ATOM	624	CG	PHE	A	149	69.932	6.961	20.216	1.00	18.27	A
	ATOM	625	CD1	PHE	A	149	70.114	7.745	21.357	1.00	19.90	A
	ATOM	626	CD2	PHE	A	149	71.049	6.467	19.559	1.00	19.21	A
25	ATOM	627	CE1	PHE	A	149	71.387	8.028	21.840	1.00	19.04	A
	ATOM	628	CE2	PHE	A	149	72.341	6.741	20.025	1.00	19.95	A
	ATOM	629	CZ	PHE	A	149	72.513	7.520	21.167	1.00	21.19	A
	ATOM	630	C	PHE	A	149	67.693	9.004	19.487	1.00	20.94	A
	ATOM	631	O	PHE	A	149	68.192	10.035	19.042	1.00	17.91	A
30	ATOM	632	N	GLN	A	150	66.888	8.988	20.539	1.00	25.44	A
	ATOM	633	CA	GLN	A	150	66.609	10.212	21.279	1.00	29.09	A
	ATOM	634	CB	GLN	A	150	65.518	11.039	20.571	1.00	29.07	A
	ATOM	635	CG	GLN	A	150	64.194	10.322	20.309	1.00	31.07	A
	ATOM	636	CD	GLN	A	150	63.150	11.227	19.609	1.00	32.52	A
35	ATOM	637	OE1	GLN	A	150	62.503	12.075	20.243	1.00	30.50	A
	ATOM	638	NE2	GLN	A	150	63.009	11.056	18.294	1.00	29.34	A
	ATOM	639	C	GLN	A	150	66.190	9.927	22.707	1.00	29.59	A
	ATOM	640	O	GLN	A	150	65.738	8.832	23.018	1.00	30.34	A
	ATOM	641	N	ASP	A	151	66.407	10.892	23.590	1.00	31.52	A
40	ATOM	642	CA	ASP	A	151	65.957	10.750	24.967	1.00	32.22	A
	ATOM	643	CB	ASP	A	151	67.093	10.948	25.974	1.00	31.30	A
	ATOM	644	CG	ASP	A	151	67.832	12.246	25.790	1.00	32.39	A
	ATOM	645	OD1	ASP	A	151	67.241	13.217	25.263	1.00	34.30	A
	ATOM	646	OD2	ASP	A	151	69.011	12.290	26.195	1.00	32.02	A
45	ATOM	647	C	ASP	A	151	64.914	11.858	25.063	1.00	33.56	A
	ATOM	648	O	ASP	A	151	64.495	12.387	24.033	1.00	34.76	A
	ATOM	649	N	ASP	A	152	64.498	12.239	26.261	1.00	35.00	A
	ATOM	650	CA	ASP	A	152	63.462	13.268	26.369	1.00	36.72	A
	ATOM	651	CB	ASP	A	152	63.053	13.465	27.830	1.00	38.27	A
50	ATOM	652	CG	ASP	A	152	62.237	12.312	28.351	1.00	42.45	A
	ATOM	653	OD1	ASP	A	152	61.377	11.824	27.579	1.00	43.52	A
	ATOM	654	OD2	ASP	A	152	62.444	11.900	29.519	1.00	44.28	A
	ATOM	655	C	ASP	A	152	63.758	14.627	25.759	1.00	36.47	A
	ATOM	656	O	ASP	A	152	62.857	15.289	25.242	1.00	36.12	A
55	ATOM	657	N	GLU	A	153	65.021	15.029	25.781	1.00	36.09	A
	ATOM	658	CA	GLU	A	153	65.358	16.343	25.292	1.00	35.16	A
	ATOM	659	CB	GLU	A	153	65.976	17.137	26.442	1.00	39.45	A
	ATOM	660	CG	GLU	A	153	65.486	16.714	27.830	1.00	45.94	A
	ATOM	661	CD	GLU	A	153	66.383	15.652	28.468	1.00	51.78	A

	ATOM	662	OE1	GLU	A	153	67.563	15.977	28.746	1.00	54.51	A
	ATOM	663	OE2	GLU	A	153	65.924	14.500	28.689	1.00	52.47	A
	ATOM	664	C	GLU	A	153	66.258	16.455	24.073	1.00	32.91	A
	ATOM	665	O	GLU	A	153	66.304	17.524	23.457	1.00	31.19	A
5	ATOM	666	N	LYS	A	154	66.959	15.376	23.710	1.00	30.19	A
	ATOM	667	CA	LYS	A	154	67.898	15.431	22.582	1.00	26.56	A
	ATOM	668	CB	LYS	A	154	69.323	15.414	23.121	1.00	24.92	A
	ATOM	669	CG	LYS	A	154	69.630	16.551	24.041	1.00	23.66	A
	ATOM	670	CD	LYS	A	154	70.944	16.355	24.750	1.00	20.95	A
10	ATOM	671	CE	LYS	A	154	71.274	17.583	25.576	1.00	18.98	A
	ATOM	672	NZ	LYS	A	154	72.491	17.388	26.360	1.00	19.19	A
	ATOM	673	C	LYS	A	154	67.806	14.374	21.487	1.00	25.00	A
	ATOM	674	O	LYS	A	154	67.342	13.257	21.701	1.00	25.62	A
	ATOM	675	N	LEU	A	155	68.276	14.759	20.308	1.00	23.36	A
15	ATOM	676	CA	LEU	A	155	68.337	13.881	19.140	1.00	22.19	A
	ATOM	677	CB	LEU	A	155	67.946	14.624	17.864	1.00	21.64	A
	ATOM	678	CG	LEU	A	155	66.539	15.167	17.707	1.00	22.58	A
	ATOM	679	CD1	LEU	A	155	66.437	15.847	16.350	1.00	22.74	A
	ATOM	680	CD2	LEU	A	155	65.533	14.034	17.815	1.00	23.23	A
20	ATOM	681	C	LEU	A	155	69.798	13.474	19.004	1.00	20.69	A
	ATOM	682	O	LEU	A	155	70.693	14.287	19.249	1.00	21.61	A
	ATOM	683	N	TYR	A	156	70.036	12.238	18.592	1.00	18.69	A
	ATOM	684	CA	TYR	A	156	71.393	11.737	18.431	1.00	18.65	A
	ATOM	685	CB	TYR	A	156	71.690	10.661	19.489	1.00	18.51	A
25	ATOM	686	CG	TYR	A	156	71.602	11.148	20.913	1.00	17.86	A
	ATOM	687	CD1	TYR	A	156	70.372	11.287	21.550	1.00	18.38	A
	ATOM	688	CE1	TYR	A	156	70.286	11.752	22.862	1.00	18.95	A
	ATOM	689	CD2	TYR	A	156	72.755	11.488	21.621	1.00	19.32	A
	ATOM	690	CE2	TYR	A	156	72.690	11.957	22.942	1.00	18.14	A
30	ATOM	691	CZ	TYR	A	156	71.449	12.086	23.551	1.00	18.56	A
	ATOM	692	OH	TYR	A	156	71.372	12.547	24.838	1.00	18.33	A
	ATOM	693	C	TYR	A	156	71.640	11.125	17.059	1.00	18.03	A
	ATOM	694	O	TYR	A	156	70.903	10.250	16.646	1.00	18.18	A
	ATOM	695	N	PHE	A	157	72.662	11.568	16.338	1.00	17.19	A
35	ATOM	696	CA	PHE	A	157	72.937	10.934	15.062	1.00	17.15	A
	ATOM	697	CB	PHE	A	157	72.980	11.951	13.918	1.00	21.54	A
	ATOM	698	CG	PHE	A	157	71.663	12.638	13.651	1.00	26.82	A
	ATOM	699	CD1	PHE	A	157	70.471	12.165	14.221	1.00	30.87	A
	ATOM	700	CD2	PHE	A	157	71.617	13.794	12.869	1.00	28.42	A
40	ATOM	701	CE1	PHE	A	157	69.249	12.845	14.024	1.00	30.45	A
	ATOM	702	CE2	PHE	A	157	70.407	14.483	12.661	1.00	29.44	A
	ATOM	703	CZ	PHE	A	157	69.224	14.008	13.243	1.00	30.41	A
	ATOM	704	C	PHE	A	157	74.286	10.244	15.184	1.00	16.38	A
	ATOM	705	O	PHE	A	157	75.256	10.883	15.527	1.00	17.91	A
45	ATOM	706	N	GLY	A	158	74.347	8.942	14.919	1.00	16.20	A
	ATOM	707	CA	GLY	A	158	75.614	8.232	15.009	1.00	15.78	A
	ATOM	708	C	GLY	A	158	76.322	8.285	13.671	1.00	16.51	A
	ATOM	709	O	GLY	A	158	75.876	7.659	12.710	1.00	17.95	A
	ATOM	710	N	LEU	A	159	77.423	9.028	13.600	1.00	14.97	A
50	ATOM	711	CA	LEU	A	159	78.143	9.177	12.342	1.00	15.17	A
	ATOM	712	CB	LEU	A	159	78.264	10.669	12.012	1.00	13.14	A
	ATOM	713	CG	LEU	A	159	76.989	11.518	12.133	1.00	12.95	A
	ATOM	714	CD1	LEU	A	159	77.347	13.002	11.872	1.00	7.84	A
	ATOM	715	CD2	LEU	A	159	75.926	11.020	11.138	1.00	11.24	A
55	ATOM	716	C	LEU	A	159	79.535	8.540	12.300	1.00	15.49	A
	ATOM	717	O	LEU	A	159	80.136	8.256	13.333	1.00	15.76	A
	ATOM	718	N	SER	A	160	80.051	8.313	11.097	1.00	14.32	A
	ATOM	719	CA	SER	A	160	81.389	7.759	10.984	1.00	14.68	A
	ATOM	720	CB	SER	A	160	81.699	7.386	9.529	1.00	12.79	A

	ATOM	721	OG	SER A 160	81.395	8.432	8.626	1.00	16.15	A
	ATOM	722	C	SER A 160	82.365	8.823	11.509	1.00	15.82	A
	ATOM	723	O	SER A 160	82.152	10.029	11.333	1.00	17.75	A
	ATOM	724	N	TYR A 161	83.418	8.386	12.184	1.00	16.30	A
5	ATOM	725	CA	TYR A 161	84.399	9.309	12.740	1.00	17.11	A
	ATOM	726	CB	TYR A 161	84.863	8.785	14.100	1.00	16.09	A
	ATOM	727	CG	TYR A 161	86.020	9.529	14.717	1.00	19.80	A
	ATOM	728	CD1	TYR A 161	86.070	10.933	14.700	1.00	18.64	A
	ATOM	729	CE1	TYR A 161	87.091	11.625	15.345	1.00	19.50	A
10	ATOM	730	CD2	TYR A 161	87.032	8.837	15.394	1.00	20.09	A
	ATOM	731	CE2	TYR A 161	88.057	9.517	16.047	1.00	21.66	A
	ATOM	732	CZ	TYR A 161	88.085	10.918	16.022	1.00	23.52	A
	ATOM	733	OH	TYR A 161	89.111	11.600	16.674	1.00	22.64	A
	ATOM	734	C	TYR A 161	85.594	9.495	11.815	1.00	17.86	A
15	ATOM	735	O	TYR A 161	86.269	8.527	11.459	1.00	19.30	A
	ATOM	736	N	ALA A 162	85.854	10.736	11.418	1.00	18.22	A
	ATOM	737	CA	ALA A 162	86.990	11.040	10.546	1.00	19.59	A
	ATOM	738	CB	ALA A 162	86.569	12.063	9.466	1.00	19.99	A
	ATOM	739	C	ALA A 162	88.051	11.629	11.472	1.00	19.11	A
20	ATOM	740	O	ALA A 162	88.050	12.828	11.736	1.00	18.81	A
	ATOM	741	N	ALA A 163	88.952	10.775	11.956	1.00	18.78	A
	ATOM	742	CA	ALA A 163	89.994	11.165	12.918	1.00	18.84	A
	ATOM	743	CB	ALA A 163	90.867	9.924	13.279	1.00	19.04	A
	ATOM	744	C	ALA A 163	90.908	12.357	12.604	1.00	18.22	A
25	ATOM	745	O	ALA A 163	91.290	13.101	13.508	1.00	16.79	A
	ATOM	746	N	ASN A 164	91.251	12.560	11.340	1.00	17.46	A
	ATOM	747	CA	ASN A 164	92.148	13.645	11.023	1.00	17.79	A
	ATOM	748	CB	ASN A 164	92.990	13.270	9.803	1.00	20.45	A
	ATOM	749	CG	ASN A 164	93.919	12.092	10.097	1.00	21.08	A
30	ATOM	750	OD1	ASN A 164	94.663	12.117	11.066	1.00	21.57	A
	ATOM	751	ND2	ASN A 164	93.862	11.059	9.271	1.00	24.54	A
	ATOM	752	C	ASN A 164	91.555	15.044	10.889	1.00	18.34	A
	ATOM	753	O	ASN A 164	92.293	16.005	10.634	1.00	19.83	A
	ATOM	754	N	GLY A 165	90.247	15.176	11.083	1.00	15.01	A
35	ATOM	755	CA	GLY A 165	89.644	16.490	11.022	1.00	15.54	A
	ATOM	756	C	GLY A 165	89.580	17.212	9.683	1.00	17.67	A
	ATOM	757	O	GLY A 165	89.607	16.600	8.613	1.00	19.49	A
	ATOM	758	N	GLU A 166	89.510	18.534	9.753	1.00	17.46	A
	ATOM	759	CA	GLU A 166	89.378	19.379	8.577	1.00	19.26	A
40	ATOM	760	CB	GLU A 166	89.064	20.805	9.019	1.00	21.87	A
	ATOM	761	CG	GLU A 166	88.057	20.917	10.149	1.00	24.70	A
	ATOM	762	CD	GLU A 166	87.723	22.359	10.477	1.00	26.05	A
	ATOM	763	OE1	GLU A 166	88.469	23.251	10.001	1.00	25.93	A
	ATOM	764	OE2	GLU A 166	86.726	22.598	11.213	1.00	25.24	A
45	ATOM	765	C	GLU A 166	90.538	19.441	7.592	1.00	20.11	A
	ATOM	766	O	GLU A 166	91.707	19.501	7.978	1.00	22.88	A
	ATOM	767	N	LEU A 167	90.195	19.443	6.312	1.00	18.72	A
	ATOM	768	CA	LEU A 167	91.173	19.565	5.242	1.00	17.38	A
	ATOM	769	CB	LEU A 167	90.463	19.516	3.888	1.00	15.71	A
50	ATOM	770	CG	LEU A 167	91.238	19.817	2.601	1.00	15.42	A
	ATOM	771	CD1	LEU A 167	92.242	18.704	2.343	1.00	14.98	A
	ATOM	772	CD2	LEU A 167	90.265	19.947	1.416	1.00	12.32	A
	ATOM	773	C	LEU A 167	91.817	20.940	5.438	1.00	19.75	A
	ATOM	774	O	LEU A 167	93.030	21.103	5.266	1.00	19.61	A
55	ATOM	775	N	LEU A 168	91.001	21.928	5.812	1.00	20.53	A
	ATOM	776	CA	LEU A 168	91.516	23.277	6.033	1.00	22.20	A
	ATOM	777	CB	LEU A 168	90.436	24.192	6.637	1.00	20.41	A
	ATOM	778	CG	LEU A 168	90.923	25.611	7.024	1.00	21.71	A
	ATOM	779	CD1	LEU A 168	91.275	26.413	5.768	1.00	20.09	A

	ATOM	780	CD2	LEU	A	168	89.837	26.341	7.797	1.00	20.84	A
	ATOM	781	C	LEU	A	168	92.731	23.245	6.968	1.00	23.07	A
	ATOM	782	O	LEU	A	168	93.636	24.054	6.838	1.00	22.18	A
	ATOM	783	N	LYS	A	169	92.742	22.305	7.905	1.00	24.67	A
5	ATOM	784	CA	LYS	A	169	93.844	22.192	8.850	1.00	28.56	A
	ATOM	785	CB	LYS	A	169	93.561	21.076	9.858	1.00	31.12	A
	ATOM	786	CG	LYS	A	169	94.615	20.933	10.938	1.00	35.60	A
	ATOM	787	CD	LYS	A	169	94.436	19.652	11.765	1.00	39.37	A
	ATOM	788	CE	LYS	A	169	94.832	18.410	10.961	1.00	42.26	A
10	ATOM	789	NZ	LYS	A	169	94.664	17.131	11.725	1.00	42.83	A
	ATOM	790	C	LYS	A	169	95.151	21.902	8.119	1.00	29.24	A
	ATOM	791	O	LYS	A	169	96.190	22.505	8.398	1.00	30.32	A
	ATOM	792	N	TYR	A	170	95.101	20.970	7.179	1.00	29.12	A
	ATOM	793	CA	TYR	A	170	96.290	20.619	6.423	1.00	28.18	A
15	ATOM	794	CB	TYR	A	170	96.037	19.344	5.637	1.00	25.30	A
	ATOM	795	CG	TYR	A	170	95.926	18.182	6.569	1.00	27.01	A
	ATOM	796	CD1	TYR	A	170	97.072	17.533	7.053	1.00	26.92	A
	ATOM	797	CE1	TYR	A	170	96.974	16.532	8.008	1.00	25.37	A
	ATOM	798	CD2	TYR	A	170	94.688	17.792	7.062	1.00	25.14	A
20	ATOM	799	CE2	TYR	A	170	94.580	16.807	8.009	1.00	26.49	A
	ATOM	800	CZ	TYR	A	170	95.720	16.179	8.484	1.00	26.98	A
	ATOM	801	OH	TYR	A	170	95.580	15.223	9.456	1.00	27.66	A
	ATOM	802	C	TYR	A	170	96.690	21.742	5.507	1.00	28.69	A
	ATOM	803	O	TYR	A	170	97.875	21.971	5.285	1.00	30.98	A
25	ATOM	804	N	ILE	A	171	95.705	22.452	4.976	1.00	28.95	A
	ATOM	805	CA	ILE	A	171	96.006	23.550	4.088	1.00	29.79	A
	ATOM	806	CB	ILE	A	171	94.721	24.233	3.579	1.00	29.29	A
	ATOM	807	CG2	ILE	A	171	95.082	25.439	2.714	1.00	28.21	A
	ATOM	808	CG1	ILE	A	171	93.906	23.227	2.747	1.00	29.66	A
30	ATOM	809	CD1	ILE	A	171	92.567	23.754	2.224	1.00	29.13	A
	ATOM	810	C	ILE	A	171	96.897	24.536	4.833	1.00	31.13	A
	ATOM	811	O	ILE	A	171	97.925	24.956	4.300	1.00	30.93	A
	ATOM	812	N	ARG	A	172	96.525	24.862	6.075	1.00	32.00	A
	ATOM	813	CA	ARG	A	172	97.294	25.789	6.903	1.00	32.60	A
35	ATOM	814	CB	ARG	A	172	96.527	26.175	8.163	1.00	32.77	A
	ATOM	815	CG	ARG	A	172	95.257	26.982	7.972	1.00	38.24	A
	ATOM	816	CD	ARG	A	172	94.853	27.602	9.335	1.00	43.47	A
	ATOM	817	NE	ARG	A	172	93.501	28.181	9.412	1.00	46.65	A
	ATOM	818	CZ	ARG	A	172	92.903	28.888	8.448	1.00	47.62	A
40	ATOM	819	NH1	ARG	A	172	93.517	29.115	7.287	1.00	47.16	A
	ATOM	820	NH2	ARG	A	172	91.691	29.398	8.659	1.00	45.61	A
	ATOM	821	C	ARG	A	172	98.646	25.219	7.338	1.00	32.95	A
	ATOM	822	O	ARG	A	172	99.644	25.920	7.311	1.00	34.27	A
	ATOM	823	N	ALA	A	173	98.674	23.960	7.761	1.00	32.74	A
45	ATOM	824	CA	ALA	A	173	99.912	23.341	8.209	1.00	32.81	A
	ATOM	825	CB	ALA	A	173	99.668	21.896	8.619	1.00	32.72	A
	ATOM	826	C	ALA	A	173	101.005	23.400	7.152	1.00	33.67	A
	ATOM	827	O	ALA	A	173	102.125	23.817	7.438	1.00	33.78	A
	ATOM	828	N	ILE	A	174	100.698	22.995	5.926	1.00	33.50	A
50	ATOM	829	CA	ILE	A	174	101.728	23.030	4.896	1.00	33.22	A
	ATOM	830	CB	ILE	A	174	101.731	21.736	4.043	1.00	33.98	A
	ATOM	831	CG2	ILE	A	174	101.725	20.502	4.950	1.00	32.94	A
	ATOM	832	CG1	ILE	A	174	100.517	21.709	3.125	1.00	33.93	A
	ATOM	833	CD1	ILE	A	174	100.602	20.631	2.080	1.00	36.79	A
55	ATOM	834	C	ILE	A	174	101.638	24.231	3.957	1.00	32.69	A
	ATOM	835	O	ILE	A	174	102.326	24.269	2.938	1.00	33.88	A
	ATOM	836	N	GLY	A	175	100.792	25.204	4.287	1.00	31.76	A
	ATOM	837	CA	GLY	A	175	100.671	26.386	3.446	1.00	32.03	A
	ATOM	838	C	GLY	A	175	99.838	26.223	2.184	1.00	32.77	A

	ATOM	839	O	GLY	A	175	98.870	26.958	1.976	1.00	35.12	A
	ATOM	840	N	SER	A	176	100.225	25.291	1.322	1.00	31.63	A
	ATOM	841	CA	SER	A	176	99.489	25.018	0.091	1.00	31.11	A
	ATOM	842	CB	SER	A	176	99.810	26.040	-0.996	1.00	31.54	A
5	ATOM	843	OG	SER	A	176	101.141	25.874	-1.464	1.00	33.96	A
	ATOM	844	C	SER	A	176	99.946	23.640	-0.354	1.00	30.72	A
	ATOM	845	O	SER	A	176	100.977	23.154	0.111	1.00	31.29	A
	ATOM	846	N	PHE	A	177	99.180	23.018	-1.246	1.00	28.27	A
	ATOM	847	CA	PHE	A	177	99.475	21.683	-1.738	1.00	26.97	A
10	ATOM	848	CB	PHE	A	177	98.169	20.948	-2.060	1.00	27.18	A
	ATOM	849	CG	PHE	A	177	97.376	20.530	-0.854	1.00	27.90	A
	ATOM	850	CD1	PHE	A	177	97.551	21.155	0.379	1.00	26.91	A
	ATOM	851	CD2	PHE	A	177	96.432	19.503	-0.957	1.00	27.62	A
	ATOM	852	CE1	PHE	A	177	96.812	20.762	1.477	1.00	26.03	A
15	ATOM	853	CE2	PHE	A	177	95.684	19.106	0.144	1.00	23.95	A
	ATOM	854	CZ	PHE	A	177	95.873	19.730	1.357	1.00	25.81	A
	ATOM	855	C	PHE	A	177	100.299	21.726	-3.008	1.00	26.99	A
	ATOM	856	O	PHE	A	177	100.115	22.618	-3.832	1.00	27.45	A
	ATOM	857	N	ASP	A	178	101.200	20.762	-3.179	1.00	26.09	A
20	ATOM	858	CA	ASP	A	178	101.967	20.704	-4.411	1.00	26.09	A
	ATOM	859	CB	ASP	A	178	103.135	19.730	-4.303	1.00	27.73	A
	ATOM	860	CG	ASP	A	178	102.689	18.318	-4.023	1.00	33.79	A
	ATOM	861	OD1	ASP	A	178	101.601	17.919	-4.510	1.00	37.57	A
	ATOM	862	OD2	ASP	A	178	103.431	17.590	-3.324	1.00	35.89	A
25	ATOM	863	C	ASP	A	178	100.955	20.202	-5.443	1.00	25.72	A
	ATOM	864	O	ASP	A	178	99.763	20.063	-5.128	1.00	24.80	A
	ATOM	865	N	GLU	A	179	101.419	19.897	-6.650	1.00	24.80	A
	ATOM	866	CA	GLU	A	179	100.514	19.444	-7.697	1.00	25.67	A
	ATOM	867	CB	GLU	A	179	101.187	19.554	-9.052	1.00	27.44	A
30	ATOM	868	CG	GLU	A	179	100.197	19.921	-10.129	1.00	31.17	A
	ATOM	869	CD	GLU	A	179	100.823	19.999	-11.492	1.00	35.24	A
	ATOM	870	OE1	GLU	A	179	102.016	20.372	-11.572	1.00	35.82	A
	ATOM	871	OE2	GLU	A	179	100.116	19.707	-12.488	1.00	38.12	A
	ATOM	872	C	GLU	A	179	99.917	18.041	-7.560	1.00	24.90	A
35	ATOM	873	O	GLU	A	179	98.755	17.822	-7.894	1.00	23.01	A
	ATOM	874	N	THR	A	180	100.709	17.095	-7.082	1.00	24.57	A
	ATOM	875	CA	THR	A	180	100.240	15.723	-6.923	1.00	25.53	A
	ATOM	876	CB	THR	A	180	101.395	14.803	-6.478	1.00	24.65	A
	ATOM	877	OG1	THR	A	180	102.525	15.069	-7.304	1.00	25.84	A
40	ATOM	878	CG2	THR	A	180	101.021	13.334	-6.624	1.00	23.39	A
	ATOM	879	C	THR	A	180	99.110	15.623	-5.902	1.00	25.85	A
	ATOM	880	O	THR	A	180	98.149	14.892	-6.111	1.00	25.59	A
	ATOM	881	N	CYS	A	181	99.237	16.359	-4.799	1.00	25.83	A
	ATOM	882	CA	CYS	A	181	98.217	16.355	-3.752	1.00	26.26	A
45	ATOM	883	CB	CYS	A	181	98.778	16.939	-2.451	1.00	27.81	A
	ATOM	884	SG	CYS	A	181	100.202	16.031	-1.775	1.00	32.72	A
	ATOM	885	C	CYS	A	181	96.963	17.127	-4.169	1.00	25.20	A
	ATOM	886	O	CYS	A	181	95.853	16.696	-3.878	1.00	26.19	A
	ATOM	887	N	THR	A	182	97.139	18.262	-4.841	1.00	22.74	A
50	ATOM	888	CA	THR	A	182	96.002	19.046	-5.305	1.00	21.82	A
	ATOM	889	CB	THR	A	182	96.453	20.308	-6.103	1.00	21.81	A
	ATOM	890	OG1	THR	A	182	97.258	21.161	-5.276	1.00	24.55	A
	ATOM	891	CG2	THR	A	182	95.252	21.080	-6.593	1.00	18.62	A
	ATOM	892	C	THR	A	182	95.197	18.141	-6.249	1.00	23.45	A
55	ATOM	893	O	THR	A	182	93.975	17.997	-6.116	1.00	22.94	A
	ATOM	894	N	ARG	A	183	95.897	17.528	-7.202	1.00	22.71	A
	ATOM	895	CA	ARG	A	183	95.260	16.648	-8.158	1.00	23.26	A
	ATOM	896	CB	ARG	A	183	96.285	16.118	-9.171	1.00	22.46	A
	ATOM	897	CG	ARG	A	183	95.692	15.140	-10.184	1.00	24.96	A

	ATOM	898	CD	ARG A 183	96.762	14.512	-11.078	1.00	27.09 A
	ATOM	899	NE	ARG A 183	97.372	15.577	-11.849	1.00	33.02 A
	ATOM	900	CZ	ARG A 183	98.637	15.948	-11.732	1.00	33.62 A
	ATOM	901	NH1	ARG A 183	99.440	15.312	-10.885	1.00	32.57 A
5	ATOM	902	NH2	ARG A 183	99.069	17.006	-12.404	1.00	33.25 A
	ATOM	903	C	ARG A 183	94.559	15.475	-7.459	1.00	22.42 A
	ATOM	904	O	ARG A 183	93.393	15.193	-7.721	1.00	21.37 A
	ATOM	905	N	PHE A 184	95.255	14.800	-6.562	1.00	21.19 A
	ATOM	906	CA	PHE A 184	94.630	13.673	-5.888	1.00	22.20 A
10	ATOM	907	CB	PHE A 184	95.615	12.964	-4.966	1.00	23.58 A
	ATOM	908	CG	PHE A 184	95.029	11.766	-4.283	1.00	25.43 A
	ATOM	909	CD1	PHE A 184	94.916	10.556	-4.954	1.00	25.01 A
	ATOM	910	CD2	PHE A 184	94.508	11.867	-2.998	1.00	24.35 A
	ATOM	911	CE1	PHE A 184	94.285	9.460	-4.356	1.00	23.50 A
15	ATOM	912	CE2	PHE A 184	93.881	10.782	-2.409	1.00	24.71 A
	ATOM	913	CZ	PHE A 184	93.771	9.577	-3.094	1.00	22.95 A
	ATOM	914	C	PHE A 184	93.405	14.074	-5.072	1.00	21.96 A
	ATOM	915	O	PHE A 184	92.348	13.450	-5.170	1.00	21.31 A
	ATOM	916	N	TYR A 185	93.544	15.116	-4.267	1.00	21.18 A
20	ATOM	917	CA	TYR A 185	92.433	15.543	-3.445	1.00	20.50 A
	ATOM	918	CB	TYR A 185	92.956	16.425	-2.313	1.00	21.33 A
	ATOM	919	CG	TYR A 185	93.494	15.550	-1.190	1.00	22.24 A
	ATOM	920	CD1	TYR A 185	92.641	14.670	-0.507	1.00	21.55 A
	ATOM	921	CE1	TYR A 185	93.127	13.755	0.414	1.00	20.71 A
25	ATOM	922	CD2	TYR A 185	94.853	15.497	-0.904	1.00	21.37 A
	ATOM	923	CE2	TYR A 185	95.353	14.579	0.019	1.00	21.80 A
	ATOM	924	CZ	TYR A 185	94.486	13.705	0.670	1.00	21.18 A
	ATOM	925	OH	TYR A 185	94.986	12.746	1.519	1.00	19.84 A
	ATOM	926	C	TYR A 185	91.273	16.182	-4.201	1.00	19.27 A
30	ATOM	927	O	TYR A 185	90.112	16.056	-3.801	1.00	17.72 A
	ATOM	928	N	THR A 186	91.576	16.834	-5.314	1.00	17.25 A
	ATOM	929	CA	THR A 186	90.527	17.433	-6.110	1.00	15.61 A
	ATOM	930	CB	THR A 186	91.097	18.366	-7.188	1.00	15.69 A
	ATOM	931	OG1	THR A 186	91.710	19.508	-6.564	1.00	16.11 A
35	ATOM	932	CG2	THR A 186	89.996	18.816	-8.135	1.00	12.68 A
	ATOM	933	C	THR A 186	89.756	16.302	-6.785	1.00	15.75 A
	ATOM	934	O	THR A 186	88.523	16.350	-6.899	1.00	16.51 A
	ATOM	935	N	ALA A 187	90.478	15.277	-7.218	1.00	14.94 A
	ATOM	936	CA	ALA A 187	89.841	14.136	-7.868	1.00	16.15 A
40	ATOM	937	CB	ALA A 187	90.905	13.130	-8.382	1.00	13.30 A
	ATOM	938	C	ALA A 187	88.847	13.450	-6.911	1.00	16.71 A
	ATOM	939	O	ALA A 187	87.743	13.075	-7.328	1.00	16.50 A
	ATOM	940	N	GLU A 188	89.213	13.308	-5.635	1.00	17.10 A
	ATOM	941	CA	GLU A 188	88.302	12.673	-4.679	1.00	17.85 A
45	ATOM	942	CB	GLU A 188	88.953	12.514	-3.302	1.00	18.83 A
	ATOM	943	CG	GLU A 188	90.219	11.665	-3.296	1.00	19.46 A
	ATOM	944	CD	GLU A 188	90.370	10.795	-2.050	1.00	20.84 A
	ATOM	945	OE1	GLU A 188	90.131	11.276	-0.920	1.00	21.14 A
	ATOM	946	OE2	GLU A 188	90.749	9.616	-2.207	1.00	23.35 A
50	ATOM	947	C	GLU A 188	87.043	13.516	-4.551	1.00	17.79 A
	ATOM	948	O	GLU A 188	85.921	13.005	-4.579	1.00	18.83 A
	ATOM	949	N	ILE A 189	87.220	14.824	-4.449	1.00	17.09 A
	ATOM	950	CA	ILE A 189	86.060	15.688	-4.312	1.00	15.61 A
	ATOM	951	CB	ILE A 189	86.495	17.141	-4.054	1.00	15.83 A
55	ATOM	952	CG2	ILE A 189	85.278	18.019	-3.853	1.00	14.16 A
	ATOM	953	CG1	ILE A 189	87.380	17.199	-2.794	1.00	17.34 A
	ATOM	954	CD1	ILE A 189	87.949	18.583	-2.479	1.00	15.37 A
	ATOM	955	C	ILE A 189	85.176	15.611	-5.558	1.00	16.00 A
	ATOM	956	O	ILE A 189	83.953	15.530	-5.460	1.00	15.52 A

	ATOM	957	N	VAL	A	190	85.794	15.619	-6.733	1.00	15.46	A
	ATOM	958	CA	VAL	A	190	85.031	15.570	-7.964	1.00	15.38	A
	ATOM	959	CB	VAL	A	190	85.975	15.641	-9.181	1.00	15.37	A
	ATOM	960	CG1	VAL	A	190	85.273	15.168	-10.447	1.00	14.43	A
5	ATOM	961	CG2	VAL	A	190	86.454	17.056	-9.350	1.00	14.03	A
	ATOM	962	C	VAL	A	190	84.228	14.279	-7.987	1.00	17.35	A
	ATOM	963	O	VAL	A	190	83.016	14.281	-8.258	1.00	15.96	A
	ATOM	964	N	SER	A	191	84.916	13.182	-7.683	1.00	17.90	A
	ATOM	965	CA	SER	A	191	84.305	11.858	-7.660	1.00	17.77	A
10	ATOM	966	CB	SER	A	191	85.377	10.811	-7.344	1.00	18.25	A
	ATOM	967	OG	SER	A	191	84.801	9.523	-7.243	1.00	21.13	A
	ATOM	968	C	SER	A	191	83.147	11.778	-6.640	1.00	17.28	A
	ATOM	969	O	SER	A	191	82.153	11.095	-6.865	1.00	15.44	A
	ATOM	970	N	ALA	A	192	83.291	12.490	-5.525	1.00	17.27	A
15	ATOM	971	CA	ALA	A	192	82.267	12.529	-4.485	1.00	15.98	A
	ATOM	972	CB	ALA	A	192	82.834	13.164	-3.191	1.00	14.89	A
	ATOM	973	C	ALA	A	192	81.078	13.336	-4.988	1.00	16.44	A
	ATOM	974	O	ALA	A	192	79.934	12.922	-4.816	1.00	17.59	A
	ATOM	975	N	LEU	A	193	81.340	14.487	-5.609	1.00	16.63	A
20	ATOM	976	CA	LEU	A	193	80.253	15.303	-6.140	1.00	16.11	A
	ATOM	977	CB	LEU	A	193	80.769	16.632	-6.688	1.00	16.40	A
	ATOM	978	CG	LEU	A	193	81.421	17.545	-5.645	1.00	18.83	A
	ATOM	979	CD1	LEU	A	193	81.779	18.885	-6.276	1.00	18.24	A
	ATOM	980	CD2	LEU	A	193	80.455	17.751	-4.479	1.00	18.63	A
25	ATOM	981	C	LEU	A	193	79.509	14.551	-7.236	1.00	16.95	A
	ATOM	982	O	LEU	A	193	78.286	14.623	-7.325	1.00	18.76	A
	ATOM	983	N	GLU	A	194	80.229	13.825	-8.079	1.00	17.87	A
	ATOM	984	CA	GLU	A	194	79.539	13.082	-9.124	1.00	19.66	A
	ATOM	985	CB	GLU	A	194	80.525	12.295	-9.990	1.00	21.82	A
30	ATOM	986	CG	GLU	A	194	79.844	11.333	-10.947	1.00	21.12	A
	ATOM	987	CD	GLU	A	194	80.831	10.513	-11.758	1.00	25.70	A
	ATOM	988	OE1	GLU	A	194	81.900	10.122	-11.216	1.00	27.41	A
	ATOM	989	OE2	GLU	A	194	80.527	10.244	-12.939	1.00	26.12	A
	ATOM	990	C	GLU	A	194	78.546	12.123	-8.479	1.00	19.58	A
35	ATOM	991	O	GLU	A	194	77.420	11.987	-8.937	1.00	17.78	A
	ATOM	992	N	TYR	A	195	78.962	11.462	-7.406	1.00	19.09	A
	ATOM	993	CA	TYR	A	195	78.063	10.545	-6.736	1.00	19.86	A
	ATOM	994	CB	TYR	A	195	78.807	9.740	-5.673	1.00	20.01	A
	ATOM	995	CG	TYR	A	195	77.871	8.975	-4.756	1.00	20.45	A
40	ATOM	996	CD1	TYR	A	195	77.329	7.748	-5.142	1.00	19.40	A
	ATOM	997	CE1	TYR	A	195	76.471	7.044	-4.296	1.00	18.43	A
	ATOM	998	CD2	TYR	A	195	77.527	9.482	-3.500	1.00	20.11	A
	ATOM	999	CE2	TYR	A	195	76.678	8.792	-2.652	1.00	19.96	A
	ATOM	1000	CZ	TYR	A	195	76.154	7.567	-3.057	1.00	21.07	A
45	ATOM	1001	OH	TYR	A	195	75.336	6.859	-2.206	1.00	21.31	A
	ATOM	1002	C	TYR	A	195	76.914	11.295	-6.060	1.00	20.00	A
	ATOM	1003	O	TYR	A	195	75.775	10.823	-6.033	1.00	21.42	A
	ATOM	1004	N	LEU	A	196	77.222	12.455	-5.500	1.00	17.38	A
	ATOM	1005	CA	LEU	A	196	76.209	13.226	-4.795	1.00	18.74	A
50	ATOM	1006	CB	LEU	A	196	76.846	14.412	-4.049	1.00	17.38	A
	ATOM	1007	CG	LEU	A	196	75.850	15.100	-3.110	1.00	19.04	A
	ATOM	1008	CD1	LEU	A	196	75.423	14.093	-2.061	1.00	17.66	A
	ATOM	1009	CD2	LEU	A	196	76.462	16.338	-2.453	1.00	19.54	A
	ATOM	1010	C	LEU	A	196	75.148	13.747	-5.751	1.00	18.47	A
55	ATOM	1011	O	LEU	A	196	73.944	13.608	-5.523	1.00	15.05	A
	ATOM	1012	N	HIS	A	197	75.622	14.361	-6.824	1.00	18.35	A
	ATOM	1013	CA	HIS	A	197	74.740	14.915	-7.812	1.00	20.04	A
	ATOM	1014	CB	HIS	A	197	75.562	15.809	-8.718	1.00	20.29	A
	ATOM	1015	CG	HIS	A	197	76.048	17.044	-8.025	1.00	21.90	A

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     ATOM   1016   CD2  HIS A 197      75.766  17.539  -6.794  1.00 19.49 A
     ATOM   1017   ND1  HIS A 197      76.892  17.956  -8.621  1.00 20.69 A
     ATOM   1018   CE1  HIS A 197      77.104  18.960  -7.789  1.00 20.86 A
     ATOM   1019   NE2  HIS A 197      76.433  18.732  -6.676  1.00 19.12 A
  5  ATOM   1020   C    HIS A 197      73.950  13.858  -8.587  1.00 21.27 A
     ATOM   1021   O    HIS A 197      72.865  14.133  -9.099  1.00 21.23 A
     ATOM   1022   N    GLY A 198      74.487  12.644  -8.644  1.00 21.36 A
     ATOM   1023   CA   GLY A 198      73.810  11.569  -9.339  1.00 20.60 A
     ATOM   1024   C    GLY A 198      72.528  11.203  -8.632  1.00 22.72 A
 10  ATOM   1025   O    GLY A 198      71.593  10.742  -9.269  1.00 22.75 A
     ATOM   1026   N    LYS A 199      72.478  11.411  -7.313  1.00 24.27 A
     ATOM   1027   CA   LYS A 199      71.280  11.105  -6.523  1.00 22.95 A
     ATOM   1028   CB   LYS A 199      71.659  10.629  -5.123  1.00 24.67 A
     ATOM   1029   CG   LYS A 199      72.570   9.429  -5.109  1.00 29.22 A
 15  ATOM   1030   CD   LYS A 199      72.986   9.064  -3.701  1.00 33.11 A
     ATOM   1031   CE   LYS A 199      72.531   7.660  -3.366  1.00 37.28 A
     ATOM   1032   NZ   LYS A 199      72.917   6.686  -4.455  1.00 38.82 A
     ATOM   1033   C    LYS A 199      70.432  12.354  -6.398  1.00 22.39 A
     ATOM   1034   O    LYS A 199      69.558  12.431  -5.542  1.00 22.53 A
 20  ATOM   1035   N    GLY A 200      70.710  13.343  -7.241  1.00 21.56 A
     ATOM   1036   CA   GLY A 200      69.953  14.580  -7.203  1.00 22.28 A
     ATOM   1037   C    GLY A 200      70.006  15.326  -5.882  1.00 23.53 A
     ATOM   1038   O    GLY A 200      69.017  15.930  -5.461  1.00 24.83 A
     ATOM   1039   N    ILE A 201      71.161  15.302  -5.225  1.00 22.74 A
 25  ATOM   1040   CA   ILE A 201      71.314  15.985  -3.951  1.00 22.95 A
     ATOM   1041   CB   ILE A 201      71.796  15.007  -2.842  1.00 22.51 A
     ATOM   1042   CG2  ILE A 201      71.995  15.757  -1.536  1.00 21.73 A
     ATOM   1043   CG1  ILE A 201      70.788  13.876  -2.638  1.00 22.48 A
     ATOM   1044   CD1  ILE A 201      71.274  12.791  -1.687  1.00 17.26 A
 30  ATOM   1045   C    ILE A 201      72.361  17.086  -4.076  1.00 24.41 A
     ATOM   1046   O    ILE A 201      73.387  16.904  -4.737  1.00 26.41 A
     ATOM   1047   N    ILE A 202      72.118  18.236  -3.470  1.00 23.00 A
     ATOM   1048   CA   ILE A 202      73.137  19.267  -3.520  1.00 24.60 A
     ATOM   1049   CB   ILE A 202      72.729  20.440  -4.420  1.00 26.37 A
 35  ATOM   1050   CG2  ILE A 202      72.503  19.934  -5.829  1.00 28.52 A
     ATOM   1051   CG1  ILE A 202      71.450  21.086  -3.922  1.00 29.04 A
     ATOM   1052   CD1  ILE A 202      70.958  22.165  -4.845  1.00 32.55 A
     ATOM   1053   C    ILE A 202      73.482  19.732  -2.105  1.00 24.36 A
     ATOM   1054   O    ILE A 202      72.605  19.919  -1.257  1.00 25.89 A
 40  ATOM   1055   N    HIS A 203      74.776  19.882  -1.856  1.00 22.94 A
     ATOM   1056   CA   HIS A 203      75.289  20.273  -0.555  1.00 22.27 A
     ATOM   1057   CB   HIS A 203      76.800  20.010  -0.526  1.00 20.00 A
     ATOM   1058   CG   HIS A 203      77.401  20.051   0.840  1.00 18.45 A
     ATOM   1059   CD2  HIS A 203      77.865  19.060   1.640  1.00 19.77 A
 45  ATOM   1060   ND1  HIS A 203      77.569  21.222   1.542  1.00 16.33 A
     ATOM   1061   CE1  HIS A 203      78.115  20.953   2.715  1.00 17.77 A
     ATOM   1062   NE2  HIS A 203      78.306  19.650   2.800  1.00 18.48 A
     ATOM   1063   C    HIS A 203      74.978  21.731  -0.206  1.00 23.37 A
     ATOM   1064   O    HIS A 203      74.411  22.009   0.860  1.00 22.52 A
 50  ATOM   1065   N    ARG A 204      75.361  22.648  -1.101  1.00 23.22 A
     ATOM   1066   CA   ARG A 204      75.126  24.087  -0.934  1.00 23.42 A
     ATOM   1067   CB   ARG A 204      73.674  24.375  -0.544  1.00 22.74 A
     ATOM   1068   CG   ARG A 204      72.663  23.966  -1.561  1.00 24.57 A
     ATOM   1069   CD   ARG A 204      71.341  24.681  -1.325  1.00 26.51 A
 55  ATOM   1070   NE   ARG A 204      70.699  24.299  -0.074  1.00 28.25 A
     ATOM   1071   CZ   ARG A 204      69.596  24.871   0.405  1.00 28.63 A
     ATOM   1072   NH1  ARG A 204      69.013  25.849  -0.267  1.00 28.47 A
     ATOM   1073   NH2  ARG A 204      69.086  24.472   1.563  1.00 28.55 A
     ATOM   1074   C    ARG A 204      76.017  24.819   0.061  1.00 24.12 A
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	ATOM	1075	O	ARG A 204	75.805	26.001	0.308	1.00	26.26 A
	ATOM	1076	N	ASP A 205	76.990	24.135	0.654	1.00	23.05 A
	ATOM	1077	CA	ASP A 205	77.887	24.789	1.595	1.00	20.96 A
	ATOM	1078	CB	ASP A 205	77.219	24.883	2.964	1.00	22.31 A
5	ATOM	1079	CG	ASP A 205	77.964	25.801	3.914	1.00	26.08 A
	ATOM	1080	OD1	ASP A 205	78.812	26.582	3.439	1.00	25.93 A
	ATOM	1081	OD2	ASP A 205	77.707	25.751	5.141	1.00	29.89 A
	ATOM	1082	C	ASP A 205	79.210	24.020	1.662	1.00	20.46 A
	ATOM	1083	O	ASP A 205	79.812	23.833	2.716	1.00	21.36 A
10	ATOM	1084	N	LEU A 206	79.666	23.584	0.504	1.00	18.98 A
	ATOM	1085	CA	LEU A 206	80.893	22.827	0.407	1.00	19.83 A
	ATOM	1086	CB	LEU A 206	80.983	22.229	-0.994	1.00	21.73 A
	ATOM	1087	CG	LEU A 206	82.039	21.167	-1.298	1.00	24.76 A
	ATOM	1088	CD1	LEU A 206	81.818	19.943	-0.401	1.00	24.95 A
15	ATOM	1089	CD2	LEU A 206	81.941	20.789	-2.778	1.00	23.74 A
	ATOM	1090	C	LEU A 206	82.093	23.725	0.691	1.00	20.17 A
	ATOM	1091	O	LEU A 206	82.162	24.857	0.200	1.00	20.92 A
	ATOM	1092	N	LYS A 207	83.044	23.226	1.475	1.00	19.79 A
	ATOM	1093	CA	LYS A 207	84.233	24.004	1.821	1.00	19.45 A
20	ATOM	1094	CB	LYS A 207	83.825	25.209	2.667	1.00	17.84 A
	ATOM	1095	CG	LYS A 207	83.123	24.820	3.933	1.00	19.19 A
	ATOM	1096	CD	LYS A 207	82.331	25.969	4.500	1.00	20.50 A
	ATOM	1097	CE	LYS A 207	81.663	25.556	5.797	1.00	22.10 A
	ATOM	1098	NZ	LYS A 207	80.955	26.674	6.480	1.00	22.34 A
25	ATOM	1099	C	LYS A 207	85.241	23.130	2.565	1.00	19.59 A
	ATOM	1100	O	LYS A 207	84.917	22.025	2.985	1.00	20.21 A
	ATOM	1101	N	PRO A 208	86.480	23.618	2.737	1.00	19.79 A
	ATOM	1102	CD	PRO A 208	87.032	24.869	2.188	1.00	18.04 A
	ATOM	1103	CA	PRO A 208	87.526	22.853	3.428	1.00	19.22 A
30	ATOM	1104	CB	PRO A 208	88.756	23.763	3.297	1.00	19.27 A
	ATOM	1105	CG	PRO A 208	88.496	24.521	2.027	1.00	16.27 A
	ATOM	1106	C	PRO A 208	87.221	22.477	4.883	1.00	20.50 A
	ATOM	1107	O	PRO A 208	87.791	21.511	5.411	1.00	21.44 A
	ATOM	1108	N	GLU A 209	86.335	23.231	5.530	1.00	20.19 A
35	ATOM	1109	CA	GLU A 209	85.956	22.976	6.927	1.00	21.25 A
	ATOM	1110	CB	GLU A 209	85.383	24.251	7.562	1.00	21.43 A
	ATOM	1111	CG	GLU A 209	86.330	25.446	7.535	1.00	26.33 A
	ATOM	1112	CD	GLU A 209	86.203	26.315	6.270	1.00	30.17 A
	ATOM	1113	OE1	GLU A 209	86.143	25.785	5.131	1.00	30.44 A
40	ATOM	1114	OE2	GLU A 209	86.173	27.557	6.422	1.00	33.49 A
	ATOM	1115	C	GLU A 209	84.920	21.839	7.040	1.00	22.45 A
	ATOM	1116	O	GLU A 209	84.733	21.255	8.114	1.00	21.98 A
	ATOM	1117	N	ASN A 210	84.269	21.545	5.915	1.00	22.73 A
	ATOM	1118	CA	ASN A 210	83.234	20.514	5.788	1.00	23.66 A
45	ATOM	1119	CB	ASN A 210	82.102	21.013	4.882	1.00	26.67 A
	ATOM	1120	CG	ASN A 210	81.104	21.881	5.613	1.00	33.39 A
	ATOM	1121	OD1	ASN A 210	80.223	22.481	4.988	1.00	36.52 A
	ATOM	1122	ND2	ASN A 210	81.221	21.950	6.946	1.00	34.23 A
	ATOM	1123	C	ASN A 210	83.775	19.239	5.162	1.00	21.41 A
50	ATOM	1124	O	ASN A 210	83.067	18.244	5.081	1.00	21.16 A
	ATOM	1125	N	ILE A 211	85.006	19.293	4.674	1.00	19.42 A
	ATOM	1126	CA	ILE A 211	85.619	18.141	4.029	1.00	17.43 A
	ATOM	1127	CB	ILE A 211	86.319	18.556	2.708	1.00	14.89 A
	ATOM	1128	CG2	ILE A 211	87.046	17.349	2.096	1.00	12.68 A
55	ATOM	1129	CG1	ILE A 211	85.277	19.157	1.736	1.00	13.30 A
	ATOM	1130	CD1	ILE A 211	85.855	19.805	0.435	1.00	10.47 A
	ATOM	1131	C	ILE A 211	86.620	17.578	5.024	1.00	17.83 A
	ATOM	1132	O	ILE A 211	87.685	18.151	5.241	1.00	17.76 A
	ATOM	1133	N	LEU A 212	86.265	16.457	5.639	1.00	16.05 A

	ATOM	1134	CA	LEU A 212	87.121	15.871	6.656	1.00	15.84	A
	ATOM	1135	CB	LEU A 212	86.256	15.319	7.793	1.00	14.28	A
	ATOM	1136	CG	LEU A 212	85.108	16.227	8.285	1.00	14.68	A
	ATOM	1137	CD1	LEU A 212	84.606	15.715	9.647	1.00	11.38	A
5	ATOM	1138	CD2	LEU A 212	85.579	17.685	8.422	1.00	10.88	A
	ATOM	1139	C	LEU A 212	88.031	14.787	6.114	1.00	16.77	A
	ATOM	1140	O	LEU A 212	87.861	14.335	4.984	1.00	16.78	A
	ATOM	1141	N	LEU A 213	88.999	14.374	6.925	1.00	16.47	A
	ATOM	1142	CA	LEU A 213	89.924	13.332	6.516	1.00	17.64	A
10	ATOM	1143	CB	LEU A 213	91.323	13.926	6.378	1.00	18.08	A
	ATOM	1144	CG	LEU A 213	91.367	14.880	5.176	1.00	17.92	A
	ATOM	1145	CD1	LEU A 213	92.076	16.134	5.529	1.00	18.78	A
	ATOM	1146	CD2	LEU A 213	92.042	14.187	4.000	1.00	17.07	A
	ATOM	1147	C	LEU A 213	89.919	12.147	7.473	1.00	18.68	A
15	ATOM	1148	O	LEU A 213	90.091	12.297	8.672	1.00	18.75	A
	ATOM	1149	N	ASN A 214	89.712	10.955	6.939	1.00	21.19	A
	ATOM	1150	CA	ASN A 214	89.673	9.780	7.797	1.00	23.68	A
	ATOM	1151	CB	ASN A 214	88.864	8.657	7.122	1.00	25.68	A
	ATOM	1152	CG	ASN A 214	89.613	7.979	6.012	1.00	31.70	A
20	ATOM	1153	OD1	ASN A 214	90.680	8.426	5.590	1.00	35.54	A
	ATOM	1154	ND2	ASN A 214	89.057	6.886	5.521	1.00	34.56	A
	ATOM	1155	C	ASN A 214	91.077	9.328	8.203	1.00	22.08	A
	ATOM	1156	O	ASN A 214	92.056	9.972	7.864	1.00	20.25	A
	ATOM	1157	N	ALA A 215	91.170	8.239	8.953	1.00	24.03	A
25	ATOM	1158	CA	ALA A 215	92.464	7.738	9.420	1.00	24.26	A
	ATOM	1159	CB	ALA A 215	92.276	6.502	10.277	1.00	21.70	A
	ATOM	1160	C	ALA A 215	93.421	7.426	8.296	1.00	24.90	A
	ATOM	1161	O	ALA A 215	94.615	7.435	8.491	1.00	26.03	A
	ATOM	1162	N	ASP A 216	92.889	7.143	7.108	1.00	25.93	A
30	ATOM	1163	CA	ASP A 216	93.726	6.826	5.963	1.00	26.29	A
	ATOM	1164	CB	ASP A 216	93.048	5.773	5.091	1.00	32.31	A
	ATOM	1165	CG	ASP A 216	92.862	4.456	5.812	1.00	38.06	A
	ATOM	1166	OD1	ASP A 216	93.780	4.043	6.559	1.00	40.03	A
	ATOM	1167	OD2	ASP A 216	91.800	3.823	5.616	1.00	42.79	A
35	ATOM	1168	C	ASP A 216	94.046	8.026	5.095	1.00	23.69	A
	ATOM	1169	O	ASP A 216	94.717	7.899	4.085	1.00	24.38	A
	ATOM	1170	N	MET A 217	93.546	9.187	5.478	1.00	21.45	A
	ATOM	1171	CA	MET A 217	93.752	10.418	4.726	1.00	20.48	A
	ATOM	1172	CB	MET A 217	95.226	10.614	4.396	1.00	21.48	A
40	ATOM	1173	CG	MET A 217	96.081	10.894	5.629	1.00	21.46	A
	ATOM	1174	SD	MET A 217	95.504	12.311	6.580	1.00	25.32	A
	ATOM	1175	CE	MET A 217	96.079	13.722	5.573	1.00	24.08	A
	ATOM	1176	C	MET A 217	92.900	10.556	3.458	1.00	19.63	A
	ATOM	1177	O	MET A 217	93.245	11.294	2.546	1.00	19.54	A
45	ATOM	1178	N	HIS A 218	91.794	9.824	3.405	1.00	18.82	A
	ATOM	1179	CA	HIS A 218	90.843	9.945	2.311	1.00	18.81	A
	ATOM	1180	CB	HIS A 218	90.206	8.589	1.994	1.00	20.61	A
	ATOM	1181	CG	HIS A 218	91.097	7.666	1.218	1.00	22.68	A
	ATOM	1182	CD2	HIS A 218	91.840	6.605	1.614	1.00	20.37	A
50	ATOM	1183	ND1	HIS A 218	91.316	7.806	-0.139	1.00	21.30	A
	ATOM	1184	CE1	HIS A 218	92.153	6.867	-0.541	1.00	20.75	A
	ATOM	1185	NE2	HIS A 218	92.485	6.128	0.501	1.00	20.31	A
	ATOM	1186	C	HIS A 218	89.774	10.925	2.863	1.00	18.97	A
	ATOM	1187	O	HIS A 218	89.534	10.965	4.083	1.00	16.48	A
55	ATOM	1188	N	ILE A 219	89.166	11.721	1.978	1.00	17.41	A
	ATOM	1189	CA	ILE A 219	88.165	12.702	2.387	1.00	16.48	A
	ATOM	1190	CB	ILE A 219	87.765	13.695	1.242	1.00	13.43	A
	ATOM	1191	CG2	ILE A 219	88.984	14.404	0.698	1.00	10.66	A
	ATOM	1192	CG1	ILE A 219	86.973	12.952	0.156	1.00	11.14	A

	ATOM	1193	CD1	ILE	A	219	86.505	13.807	-0.995	1.00	4.26	A
	ATOM	1194	C	ILE	A	219	86.875	12.067	2.864	1.00	17.14	A
	ATOM	1195	O	ILE	A	219	86.541	10.943	2.497	1.00	18.77	A
	ATOM	1196	N	GLN	A	220	86.159	12.808	3.696	1.00	17.24	A
5	ATOM	1197	CA	GLN	A	220	84.878	12.376	4.203	1.00	18.93	A
	ATOM	1198	CB	GLN	A	220	85.002	11.756	5.604	1.00	22.02	A
	ATOM	1199	CG	GLN	A	220	83.791	10.874	5.952	1.00	26.68	A
	ATOM	1200	CD	GLN	A	220	83.949	10.071	7.253	1.00	31.76	A
	ATOM	1201	OE1	GLN	A	220	83.437	10.471	8.331	1.00	27.57	A
10	ATOM	1202	NE2	GLN	A	220	84.667	8.930	7.161	1.00	29.97	A
	ATOM	1203	C	GLN	A	220	84.077	13.652	4.261	1.00	17.44	A
	ATOM	1204	O	GLN	A	220	84.247	14.465	5.170	1.00	17.81	A
	ATOM	1205	N	ILE	A	221	83.229	13.852	3.263	1.00	15.69	A
	ATOM	1206	CA	ILE	A	221	82.413	15.051	3.230	1.00	16.08	A
15	ATOM	1207	CB	ILE	A	221	81.939	15.359	1.802	1.00	15.82	A
	ATOM	1208	CG2	ILE	A	221	80.956	16.519	1.834	1.00	13.95	A
	ATOM	1209	CG1	ILE	A	221	83.163	15.627	0.899	1.00	16.66	A
	ATOM	1210	CD1	ILE	A	221	82.837	16.045	-0.548	1.00	13.13	A
	ATOM	1211	C	ILE	A	221	81.207	14.892	4.156	1.00	16.52	A
20	ATOM	1212	O	ILE	A	221	80.542	13.860	4.157	1.00	16.03	A
	ATOM	1213	N	THR	A	222	80.927	15.922	4.948	1.00	17.66	A
	ATOM	1214	CA	THR	A	222	79.810	15.862	5.882	1.00	17.70	A
	ATOM	1215	CB	THR	A	222	80.331	15.433	7.277	1.00	18.71	A
	ATOM	1216	OG1	THR	A	222	79.230	15.263	8.172	1.00	16.76	A
25	ATOM	1217	CG2	THR	A	222	81.319	16.470	7.825	1.00	16.79	A
	ATOM	1218	C	THR	A	222	79.069	17.195	5.980	1.00	17.35	A
	ATOM	1219	O	THR	A	222	79.246	18.062	5.130	1.00	16.83	A
	ATOM	1220	N	ASP	A	223	78.244	17.344	7.018	1.00	18.09	A
	ATOM	1221	CA	ASP	A	223	77.466	18.567	7.268	1.00	19.60	A
30	ATOM	1222	CB	ASP	A	223	78.403	19.778	7.311	1.00	22.73	A
	ATOM	1223	CG	ASP	A	223	77.763	21.006	7.959	1.00	28.30	A
	ATOM	1224	OD1	ASP	A	223	76.565	20.931	8.335	1.00	28.17	A
	ATOM	1225	OD2	ASP	A	223	78.480	22.042	8.081	1.00	30.99	A
	ATOM	1226	C	ASP	A	223	76.382	18.799	6.210	1.00	19.52	A
35	ATOM	1227	O	ASP	A	223	76.528	19.655	5.340	1.00	19.39	A
	ATOM	1228	N	PHE	A	224	75.283	18.058	6.303	1.00	18.74	A
	ATOM	1229	CA	PHE	A	224	74.213	18.168	5.321	1.00	18.81	A
	ATOM	1230	CB	PHE	A	224	73.825	16.773	4.853	1.00	17.07	A
	ATOM	1231	CG	PHE	A	224	74.857	16.150	3.971	1.00	17.01	A
40	ATOM	1232	CD1	PHE	A	224	74.751	16.250	2.578	1.00	16.10	A
	ATOM	1233	CD2	PHE	A	224	75.982	15.543	4.521	1.00	14.00	A
	ATOM	1234	CE1	PHE	A	224	75.761	15.752	1.747	1.00	15.92	A
	ATOM	1235	CE2	PHE	A	224	77.001	15.042	3.699	1.00	15.63	A
	ATOM	1236	CZ	PHE	A	224	76.889	15.147	2.309	1.00	15.79	A
45	ATOM	1237	C	PHE	A	224	72.997	18.932	5.775	1.00	19.88	A
	ATOM	1238	O	PHE	A	224	71.961	18.922	5.115	1.00	19.36	A
	ATOM	1239	N	GLY	A	225	73.135	19.599	6.911	1.00	21.38	A
	ATOM	1240	CA	GLY	A	225	72.046	20.388	7.439	1.00	21.39	A
	ATOM	1241	C	GLY	A	225	71.672	21.545	6.523	1.00	23.43	A
50	ATOM	1242	O	GLY	A	225	70.802	22.323	6.869	1.00	26.22	A
	ATOM	1243	N	THR	A	226	72.311	21.692	5.370	1.00	22.15	A
	ATOM	1244	CA	THR	A	226	71.930	22.784	4.492	1.00	23.85	A
	ATOM	1245	CB	THR	A	226	72.986	23.946	4.465	1.00	24.65	A
	ATOM	1246	OG1	THR	A	226	74.197	23.511	3.830	1.00	24.83	A
55	ATOM	1247	CG2	THR	A	226	73.285	24.420	5.866	1.00	23.67	A
	ATOM	1248	C	THR	A	226	71.721	22.289	3.073	1.00	24.12	A
	ATOM	1249	O	THR	A	226	71.646	23.079	2.129	1.00	22.82	A
	ATOM	1250	N	ALA	A	227	71.620	20.976	2.935	1.00	23.84	A
	ATOM	1251	CA	ALA	A	227	71.437	20.357	1.637	1.00	26.21	A

	ATOM	1252	CB	ALA A 227	71.774	18.889	1.734	1.00 24.04 A
	ATOM	1253	C	ALA A 227	70.026	20.535	1.064	1.00 28.20 A
	ATOM	1254	O	ALA A 227	69.069	20.767	1.801	1.00 29.29 A
	ATOM	1255	N	ALA A 228	69.912	20.449	-0.258	1.00 28.91 A
5	ATOM	1256	CA	ALA A 228	68.623	20.554	-0.928	1.00 31.02 A
	ATOM	1257	CB	ALA A 228	68.577	21.795	-1.856	1.00 30.45 A
	ATOM	1258	C	ALA A 228	68.501	19.276	-1.745	1.00 32.01 A
	ATOM	1259	O	ALA A 228	69.474	18.846	-2.363	1.00 32.87 A
	ATOM	1260	N	VAL A 229	67.328	18.650	-1.732	1.00 32.95 A
10	ATOM	1261	CA	VAL A 229	67.126	17.424	-2.503	1.00 34.26 A
	ATOM	1262	CB	VAL A 229	66.468	16.347	-1.657	1.00 33.02 A
	ATOM	1263	CG1	VAL A 229	66.194	15.114	-2.498	1.00 33.80 A
	ATOM	1264	CG2	VAL A 229	67.356	16.011	-0.496	1.00 31.38 A
	ATOM	1265	C	VAL A 229	66.213	17.757	-3.665	1.00 36.36 A
15	ATOM	1266	O	VAL A 229	65.065	18.133	-3.455	1.00 38.02 A
	ATOM	1267	N	LEU A 230	66.715	17.628	-4.889	1.00 37.75 A
	ATOM	1268	CA	LEU A 230	65.917	17.965	-6.066	1.00 39.87 A
	ATOM	1269	CB	LEU A 230	66.741	17.775	-7.335	1.00 41.23 A
	ATOM	1270	CG	LEU A 230	68.039	18.585	-7.359	1.00 44.16 A
20	ATOM	1271	CD1	LEU A 230	68.843	18.208	-8.599	1.00 43.48 A
	ATOM	1272	CD2	LEU A 230	67.724	20.087	-7.313	1.00 42.99 A
	ATOM	1273	C	LEU A 230	64.646	17.137	-6.162	1.00 40.59 A
	ATOM	1274	O	LEU A 230	64.703	15.954	-6.486	1.00 41.31 A
	ATOM	1275	N	ASN A 240	65.964	27.756	-2.248	1.00 83.97 A
25	ATOM	1276	CA	ASN A 240	66.331	29.165	-2.370	1.00 84.48 A
	ATOM	1277	CB	ASN A 240	65.294	29.907	-3.225	1.00 85.56 A
	ATOM	1278	CG	ASN A 240	63.949	30.053	-2.524	1.00 86.59 A
	ATOM	1279	OD1	ASN A 240	63.850	30.682	-1.465	1.00 87.31 A
	ATOM	1280	ND2	ASN A 240	62.904	29.473	-3.115	1.00 86.14 A
30	ATOM	1281	C	ASN A 240	66.433	29.828	-0.994	1.00 83.85 A
	ATOM	1282	O	ASN A 240	66.898	30.963	-0.862	1.00 84.11 A
	ATOM	1283	N	ALA A 241	65.997	29.096	0.023	1.00 83.19 A
	ATOM	1284	CA	ALA A 241	65.996	29.564	1.405	1.00 81.85 A
	ATOM	1285	C	ALA A 241	67.330	29.365	2.127	1.00 79.97 A
35	ATOM	1286	O	ALA A 241	67.349	28.777	3.214	1.00 79.75 A
	ATOM	1287	CB	ALA A 241	64.894	28.825	2.183	1.00 85.17 A
	ATOM	1288	N	PHE A 242	68.433	29.850	1.551	1.00 77.03 A
	ATOM	1289	CA	PHE A 242	69.737	29.680	2.197	1.00 74.85 A
	ATOM	1290	CB	PHE A 242	69.973	28.183	2.438	1.00 73.81 A
40	ATOM	1291	CG	PHE A 242	71.311	27.861	3.015	1.00 72.36 A
	ATOM	1292	CD1	PHE A 242	71.595	28.116	4.353	1.00 72.39 A
	ATOM	1293	CD2	PHE A 242	72.297	27.312	2.210	1.00 72.03 A
	ATOM	1294	CE1	PHE A 242	72.855	27.823	4.879	1.00 72.87 A
	ATOM	1295	CE2	PHE A 242	73.553	27.016	2.714	1.00 72.25 A
45	ATOM	1296	CZ	PHE A 242	73.837	27.270	4.054	1.00 72.96 A
	ATOM	1297	C	PHE A 242	70.951	30.283	1.462	1.00 73.13 A
	ATOM	1298	O	PHE A 242	70.958	30.425	0.233	1.00 74.08 A
	ATOM	1299	N	VAL A 243	71.972	30.625	2.250	1.00 69.64 A
	ATOM	1300	CA	VAL A 243	73.233	31.204	1.777	1.00 65.87 A
50	ATOM	1301	CB	VAL A 243	73.207	32.765	1.834	1.00 66.73 A
	ATOM	1302	CG1	VAL A 243	74.498	33.344	1.271	1.00 65.65 A
	ATOM	1303	CG2	VAL A 243	72.008	33.299	1.084	1.00 66.83 A
	ATOM	1304	C	VAL A 243	74.349	30.708	2.703	1.00 62.21 A
	ATOM	1305	O	VAL A 243	74.471	31.189	3.839	1.00 61.91 A
55	ATOM	1306	N	GLY A 244	75.149	29.760	2.204	1.00 57.62 A
	ATOM	1307	CA	GLY A 244	76.247	29.177	2.967	1.00 51.60 A
	ATOM	1308	C	GLY A 244	77.341	30.132	3.387	1.00 46.47 A
	ATOM	1309	O	GLY A 244	77.063	31.261	3.757	1.00 48.62 A
	ATOM	1310	N	THR A 245	78.588	29.686	3.325	1.00 42.06 A

	ATOM	1311	CA	THR	A	245	79.709	30.526	3.726	1.00	36.35	A
	ATOM	1312	CB	THR	A	245	80.925	29.673	4.096	1.00	35.76	A
	ATOM	1313	OG1	THR	A	245	80.539	28.740	5.105	1.00	31.66	A
	ATOM	1314	CG2	THR	A	245	82.043	30.534	4.651	1.00	33.72	A
5	ATOM	1315	C	THR	A	245	80.064	31.524	2.637	1.00	34.43	A
	ATOM	1316	O	THR	A	245	80.309	31.166	1.485	1.00	33.95	A
	ATOM	1317	N	ALA	A	246	80.087	32.787	3.034	1.00	32.72	A
	ATOM	1318	CA	ALA	A	246	80.338	33.900	2.142	1.00	30.18	A
	ATOM	1319	CB	ALA	A	246	80.684	35.127	2.952	1.00	30.18	A
10	ATOM	1320	C	ALA	A	246	81.374	33.678	1.062	1.00	29.56	A
	ATOM	1321	O	ALA	A	246	81.099	33.895	-0.113	1.00	30.00	A
	ATOM	1322	N	GLN	A	247	82.564	33.242	1.445	1.00	28.03	A
	ATOM	1323	CA	GLN	A	247	83.623	33.030	0.468	1.00	26.97	A
	ATOM	1324	CB	GLN	A	247	84.929	32.706	1.182	1.00	28.32	A
15	ATOM	1325	CG	GLN	A	247	85.208	33.659	2.319	1.00	33.33	A
	ATOM	1326	CD	GLN	A	247	86.600	33.522	2.863	1.00	36.16	A
	ATOM	1327	OE1	GLN	A	247	87.556	34.107	2.335	1.00	36.68	A
	ATOM	1328	NE2	GLN	A	247	86.738	32.731	3.922	1.00	39.27	A
	ATOM	1329	C	GLN	A	247	83.355	31.968	-0.583	1.00	25.04	A
20	ATOM	1330	O	GLN	A	247	83.962	31.997	-1.653	1.00	25.92	A
	ATOM	1331	N	TYR	A	248	82.443	31.045	-0.304	1.00	22.51	A
	ATOM	1332	CA	TYR	A	248	82.161	29.970	-1.260	1.00	21.98	A
	ATOM	1333	CB	TYR	A	248	82.273	28.613	-0.541	1.00	17.74	A
	ATOM	1334	CG	TYR	A	248	83.626	28.444	0.117	1.00	14.83	A
25	ATOM	1335	CD1	TYR	A	248	84.736	28.063	-0.630	1.00	14.53	A
	ATOM	1336	CE1	TYR	A	248	86.017	28.034	-0.067	1.00	15.65	A
	ATOM	1337	CD2	TYR	A	248	83.820	28.784	1.460	1.00	13.57	A
	ATOM	1338	CE2	TYR	A	248	85.086	28.757	2.039	1.00	13.28	A
	ATOM	1339	CZ	TYR	A	248	86.192	28.386	1.271	1.00	16.78	A
30	ATOM	1340	OH	TYR	A	248	87.471	28.411	1.816	1.00	15.10	A
	ATOM	1341	C	TYR	A	248	80.827	30.091	-2.005	1.00	22.23	A
	ATOM	1342	O	TYR	A	248	80.523	29.268	-2.866	1.00	22.78	A
	ATOM	1343	N	VAL	A	249	80.054	31.126	-1.680	1.00	21.81	A
	ATOM	1344	CA	VAL	A	249	78.760	31.395	-2.308	1.00	22.22	A
35	ATOM	1345	CB	VAL	A	249	78.077	32.634	-1.640	1.00	22.82	A
	ATOM	1346	CG1	VAL	A	249	76.904	33.139	-2.496	1.00	22.57	A
	ATOM	1347	CG2	VAL	A	249	77.606	32.270	-0.243	1.00	22.62	A
	ATOM	1348	C	VAL	A	249	78.878	31.666	-3.818	1.00	21.92	A
	ATOM	1349	O	VAL	A	249	79.733	32.428	-4.255	1.00	20.01	A
40	ATOM	1350	N	SER	A	250	78.012	31.045	-4.609	1.00	22.88	A
	ATOM	1351	CA	SER	A	250	78.030	31.259	-6.049	1.00	24.81	A
	ATOM	1352	CB	SER	A	250	77.357	30.105	-6.792	1.00	25.82	A
	ATOM	1353	OG	SER	A	250	75.999	29.984	-6.419	1.00	27.07	A
	ATOM	1354	C	SER	A	250	77.288	32.546	-6.357	1.00	26.22	A
45	ATOM	1355	O	SER	A	250	76.438	33.004	-5.582	1.00	25.88	A
	ATOM	1356	N	PRO	A	251	77.592	33.148	-7.506	1.00	26.70	A
	ATOM	1357	CD	PRO	A	251	78.632	32.813	-8.495	1.00	27.24	A
	ATOM	1358	CA	PRO	A	251	76.908	34.393	-7.847	1.00	27.08	A
	ATOM	1359	CB	PRO	A	251	77.637	34.860	-9.113	1.00	25.51	A
50	ATOM	1360	CG	PRO	A	251	78.171	33.590	-9.701	1.00	27.43	A
	ATOM	1361	C	PRO	A	251	75.399	34.288	-8.026	1.00	28.00	A
	ATOM	1362	O	PRO	A	251	74.684	35.218	-7.678	1.00	28.30	A
	ATOM	1363	N	GLU	A	252	74.908	33.166	-8.550	1.00	28.81	A
	ATOM	1364	CA	GLU	A	252	73.469	33.012	-8.768	1.00	29.67	A
55	ATOM	1365	CB	GLU	A	252	73.151	31.684	-9.463	1.00	29.72	A
	ATOM	1366	CG	GLU	A	252	73.698	30.453	-8.740	1.00	31.04	A
	ATOM	1367	CD	GLU	A	252	75.106	30.075	-9.191	1.00	30.61	A
	ATOM	1368	OE1	GLU	A	252	75.880	30.973	-9.597	1.00	30.55	A
	ATOM	1369	OE2	GLU	A	252	75.434	28.872	-9.130	1.00	30.80	A

	ATOM	1370	C	GLU A 252	72.709	33.083	-7.462	1.00	30.83	A
	ATOM	1371	O	GLU A 252	71.563	33.530	-7.423	1.00	31.87	A
	ATOM	1372	N	LEU A 253	73.351	32.639	-6.388	1.00	32.71	A
	ATOM	1373	CA	LEU A 253	72.734	32.655	-5.073	1.00	33.94	A
5	ATOM	1374	CB	LEU A 253	73.612	31.901	-4.081	1.00	37.40	A
	ATOM	1375	CG	LEU A 253	72.967	31.086	-2.950	1.00	41.64	A
	ATOM	1376	CD1	LEU A 253	72.067	31.925	-2.048	1.00	43.86	A
	ATOM	1377	CD2	LEU A 253	72.144	30.017	-3.597	1.00	45.52	A
	ATOM	1378	C	LEU A 253	72.545	34.095	-4.603	1.00	35.67	A
10	ATOM	1379	O	LEU A 253	71.589	34.392	-3.897	1.00	37.48	A
	ATOM	1380	N	LEU A 254	73.451	34.989	-4.995	1.00	36.38	A
	ATOM	1381	CA	LEU A 254	73.372	36.397	-4.600	1.00	36.66	A
	ATOM	1382	CB	LEU A 254	74.764	37.032	-4.572	1.00	33.81	A
	ATOM	1383	CG	LEU A 254	75.824	36.402	-3.674	1.00	33.40	A
15	ATOM	1384	CD1	LEU A 254	77.183	37.022	-3.982	1.00	30.48	A
	ATOM	1385	CD2	LEU A 254	75.440	36.574	-2.208	1.00	31.43	A
	ATOM	1386	C	LEU A 254	72.485	37.240	-5.511	1.00	38.89	A
	ATOM	1387	O	LEU A 254	72.079	38.328	-5.133	1.00	38.85	A
	ATOM	1388	N	THR A 255	72.187	36.754	-6.709	1.00	42.60	A
20	ATOM	1389	CA	THR A 255	71.358	37.528	-7.624	1.00	47.21	A
	ATOM	1390	CB	THR A 255	72.102	37.847	-8.941	1.00	47.08	A
	ATOM	1391	OG1	THR A 255	72.008	36.718	-9.814	1.00	48.56	A
	ATOM	1392	CG2	THR A 255	73.581	38.157	-8.686	1.00	45.65	A
	ATOM	1393	C	THR A 255	70.044	36.848	-8.009	1.00	51.00	A
25	ATOM	1394	O	THR A 255	69.348	37.323	-8.903	1.00	51.80	A
	ATOM	1395	N	GLU A 256	69.696	35.745	-7.353	1.00	55.01	A
	ATOM	1396	CA	GLU A 256	68.450	35.044	-7.683	1.00	58.97	A
	ATOM	1397	CB	GLU A 256	68.679	34.057	-8.832	1.00	59.81	A
	ATOM	1398	CG	GLU A 256	68.922	34.707	-10.181	1.00	63.59	A
30	ATOM	1399	CD	GLU A 256	69.343	33.707	-11.240	1.00	65.64	A
	ATOM	1400	OE1	GLU A 256	68.727	32.617	-11.310	1.00	67.44	A
	ATOM	1401	OE2	GLU A 256	70.285	34.015	-12.007	1.00	66.61	A
	ATOM	1402	C	GLU A 256	67.859	34.279	-6.512	1.00	60.83	A
	ATOM	1403	O	GLU A 256	66.701	33.861	-6.563	1.00	61.27	A
35	ATOM	1404	N	ALA A 257	68.657	34.100	-5.463	1.00	62.31	A
	ATOM	1405	CA	ALA A 257	68.234	33.348	-4.285	1.00	63.29	A
	ATOM	1406	CB	ALA A 257	66.867	33.847	-3.784	1.00	62.76	A
	ATOM	1407	C	ALA A 257	68.157	31.860	-4.651	1.00	63.64	A
	ATOM	1408	O	ALA A 257	67.790	31.028	-3.825	1.00	64.96	A
40	ATOM	1409	N	SER A 258	68.523	31.532	-5.888	1.00	62.79	A
	ATOM	1410	CA	SER A 258	68.485	30.150	-6.378	1.00	62.30	A
	ATOM	1411	CB	SER A 258	68.049	30.144	-7.847	1.00	63.00	A
	ATOM	1412	OG	SER A 258	68.762	31.129	-8.582	1.00	63.40	A
	ATOM	1413	C	SER A 258	69.816	29.402	-6.237	1.00	61.09	A
45	ATOM	1414	O	SER A 258	70.862	30.009	-6.009	1.00	62.12	A
	ATOM	1415	N	ALA A 259	69.774	28.083	-6.389	1.00	58.47	A
	ATOM	1416	CA	ALA A 259	70.979	27.270	-6.278	1.00	55.79	A
	ATOM	1417	CB	ALA A 259	71.403	27.164	-4.837	1.00	56.24	A
	ATOM	1418	C	ALA A 259	70.738	25.886	-6.842	1.00	53.38	A
50	ATOM	1419	O	ALA A 259	69.641	25.347	-6.736	1.00	54.10	A
	ATOM	1420	N	CYS A 260	71.768	25.302	-7.433	1.00	49.75	A
	ATOM	1421	CA	CYS A 260	71.623	23.988	-8.015	1.00	45.68	A
	ATOM	1422	CB	CYS A 260	71.067	24.106	-9.438	1.00	48.50	A
	ATOM	1423	SG	CYS A 260	69.936	22.732	-9.899	1.00	57.53	A
55	ATOM	1424	C	CYS A 260	72.980	23.318	-8.022	1.00	41.30	A
	ATOM	1425	O	CYS A 260	73.892	23.762	-7.335	1.00	39.24	A
	ATOM	1426	N	LYS A 261	73.118	22.258	-8.805	1.00	36.63	A
	ATOM	1427	CA	LYS A 261	74.369	21.535	-8.866	1.00	33.81	A
	ATOM	1428	CB	LYS A 261	74.261	20.416	-9.897	1.00	34.27	A

	ATOM	1429	CG	LYS	A	261	73.250	19.362	-9.488	1.00	34.04	A
	ATOM	1430	CD	LYS	A	261	72.995	18.353	-10.577	1.00	33.10	A
	ATOM	1431	CE	LYS	A	261	71.983	17.336	-10.105	1.00	32.48	A
	ATOM	1432	NZ	LYS	A	261	71.660	16.357	-11.176	1.00	33.10	A
5	ATOM	1433	C	LYS	A	261	75.565	22.419	-9.153	1.00	31.80	A
	ATOM	1434	O	LYS	A	261	76.636	22.214	-8.589	1.00	31.89	A
	ATOM	1435	N	SER	A	262	75.389	23.405	-10.025	1.00	29.92	A
	ATOM	1436	CA	SER	A	262	76.477	24.314	-10.354	1.00	28.19	A
	ATOM	1437	CB	SER	A	262	76.034	25.309	-11.417	1.00	29.90	A
10	ATOM	1438	OG	SER	A	262	76.184	24.732	-12.695	1.00	34.45	A
	ATOM	1439	C	SER	A	262	77.047	25.069	-9.155	1.00	25.77	A
	ATOM	1440	O	SER	A	262	78.225	25.405	-9.146	1.00	26.59	A
	ATOM	1441	N	SER	A	263	76.216	25.347	-8.159	1.00	23.42	A
	ATOM	1442	CA	SER	A	263	76.663	26.040	-6.953	1.00	23.04	A
15	ATOM	1443	CB	SER	A	263	75.502	26.209	-5.979	1.00	24.64	A
	ATOM	1444	OG	SER	A	263	74.463	26.963	-6.572	1.00	31.12	A
	ATOM	1445	C	SER	A	263	77.777	25.233	-6.283	1.00	21.37	A
	ATOM	1446	O	SER	A	263	78.745	25.803	-5.788	1.00	20.74	A
	ATOM	1447	N	ASP	A	264	77.640	23.909	-6.268	1.00	19.11	A
20	ATOM	1448	CA	ASP	A	264	78.674	23.062	-5.682	1.00	19.35	A
	ATOM	1449	CB	ASP	A	264	78.206	21.609	-5.579	1.00	18.45	A
	ATOM	1450	CG	ASP	A	264	77.164	21.406	-4.500	1.00	19.39	A
	ATOM	1451	OD1	ASP	A	264	76.998	22.304	-3.649	1.00	20.34	A
	ATOM	1452	OD2	ASP	A	264	76.522	20.338	-4.488	1.00	19.48	A
25	ATOM	1453	C	ASP	A	264	79.943	23.127	-6.542	1.00	19.34	A
	ATOM	1454	O	ASP	A	264	81.052	23.147	-6.018	1.00	20.70	A
	ATOM	1455	N	LEU	A	265	79.772	23.162	-7.864	1.00	17.68	A
	ATOM	1456	CA	LEU	A	265	80.898	23.232	-8.774	1.00	17.42	A
	ATOM	1457	CB	LEU	A	265	80.406	23.058	-10.208	1.00	19.36	A
30	ATOM	1458	CG	LEU	A	265	79.683	21.717	-10.453	1.00	19.53	A
	ATOM	1459	CD1	LEU	A	265	79.189	21.655	-11.879	1.00	17.18	A
	ATOM	1460	CD2	LEU	A	265	80.625	20.550	-10.168	1.00	14.91	A
	ATOM	1461	C	LEU	A	265	81.619	24.566	-8.600	1.00	19.06	A
	ATOM	1462	O	LEU	A	265	82.850	24.649	-8.697	1.00	18.60	A
35	ATOM	1463	N	TRP	A	266	80.853	25.621	-8.350	1.00	18.60	A
	ATOM	1464	CA	TRP	A	266	81.468	26.902	-8.107	1.00	18.62	A
	ATOM	1465	CB	TRP	A	266	80.405	27.976	-7.876	1.00	19.75	A
	ATOM	1466	CG	TRP	A	266	80.997	29.277	-7.382	1.00	21.53	A
	ATOM	1467	CD2	TRP	A	266	81.357	30.420	-8.174	1.00	22.40	A
40	ATOM	1468	CE2	TRP	A	266	81.917	31.375	-7.296	1.00	22.70	A
	ATOM	1469	CE3	TRP	A	266	81.260	30.728	-9.541	1.00	21.62	A
	ATOM	1470	CD1	TRP	A	266	81.344	29.582	-6.094	1.00	20.15	A
	ATOM	1471	NE1	TRP	A	266	81.896	30.835	-6.037	1.00	20.80	A
	ATOM	1472	CZ2	TRP	A	266	82.382	32.624	-7.739	1.00	22.47	A
45	ATOM	1473	CZ3	TRP	A	266	81.721	31.961	-9.981	1.00	22.48	A
	ATOM	1474	CH2	TRP	A	266	82.276	32.898	-9.080	1.00	23.40	A
	ATOM	1475	C	TRP	A	266	82.338	26.734	-6.857	1.00	18.89	A
	ATOM	1476	O	TRP	A	266	83.523	27.070	-6.875	1.00	20.01	A
	ATOM	1477	N	ALA	A	267	81.755	26.204	-5.780	1.00	16.09	A
50	ATOM	1478	CA	ALA	A	267	82.502	25.994	-4.540	1.00	15.55	A
	ATOM	1479	CB	ALA	A	267	81.630	25.313	-3.499	1.00	13.20	A
	ATOM	1480	C	ALA	A	267	83.738	25.145	-4.813	1.00	16.44	A
	ATOM	1481	O	ALA	A	267	84.802	25.345	-4.218	1.00	17.65	A
	ATOM	1482	N	LEU	A	268	83.597	24.181	-5.710	1.00	15.96	A
55	ATOM	1483	CA	LEU	A	268	84.732	23.336	-6.055	1.00	17.56	A
	ATOM	1484	CB	LEU	A	268	84.315	22.281	-7.098	1.00	16.91	A
	ATOM	1485	CG	LEU	A	268	85.477	21.535	-7.775	1.00	16.43	A
	ATOM	1486	CD1	LEU	A	268	86.214	20.697	-6.766	1.00	15.17	A
	ATOM	1487	CD2	LEU	A	268	84.947	20.643	-8.871	1.00	17.18	A

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      ATOM   1488   C    LEU A 268        85.892   24.193   -6.599   1.00 15.96 A
      ATOM   1489   O    LEU A 268        87.032   24.040   -6.178   1.00 14.54 A
      ATOM   1490   N    GLY A 269        85.578   25.092   -7.530   1.00 17.15 A
      ATOM   1491   CA   GLY A 269        86.590   25.957   -8.116   1.00 18.32 A
   5  ATOM   1492   C    GLY A 269        87.339   26.722   -7.042   1.00 19.39 A
      ATOM   1493   O    GLY A 269        88.579   26.777   -7.042   1.00 19.66 A
      ATOM   1494   N    CYS A 270        86.579   27.297   -6.111   1.00 17.50 A
      ATOM   1495   CA   CYS A 270        87.154   28.043   -5.010   1.00 17.72 A
      ATOM   1496   CB   CYS A 270        86.047   28.551   -4.088   1.00 18.96 A
  10  ATOM   1497   SG   CYS A 270        84.981   29.801   -4.798   1.00 19.62 A
      ATOM   1498   C    CYS A 270        88.114   27.182   -4.201   1.00 18.63 A
      ATOM   1499   O    CYS A 270        89.213   27.612   -3.850   1.00 18.78 A
      ATOM   1500   N    ILE A 271        87.679   25.962   -3.900   1.00 20.05 A
      ATOM   1501   CA   ILE A 271        88.479   25.019   -3.130   1.00 20.08 A
  15  ATOM   1502   CB   ILE A 271        87.668   23.755   -2.812   1.00 20.09 A
      ATOM   1503   CG2  ILE A 271        88.592   22.654   -2.302   1.00 18.31 A
      ATOM   1504   CG1  ILE A 271        86.558   24.104   -1.810   1.00 18.38 A
      ATOM   1505   CD1  ILE A 271        85.396   23.125   -1.783   1.00 14.68 A
      ATOM   1506   C    ILE A 271        89.761   24.629   -3.858   1.00 20.41 A
  20  ATOM   1507   O    ILE A 271        90.826   24.548   -3.234   1.00 21.81 A
      ATOM   1508   N    ILE A 272        89.669   24.398   -5.166   1.00 18.41 A
      ATOM   1509   CA   ILE A 272        90.860   24.035   -5.934   1.00 19.20 A
      ATOM   1510   CB   ILE A 272        90.526   23.730   -7.412   1.00 20.04 A
      ATOM   1511   CG2  ILE A 272        91.808   23.488   -8.199   1.00 17.73 A
  25  ATOM   1512   CG1  ILE A 272        89.602   22.523   -7.513   1.00 19.47 A
      ATOM   1513   CD1  ILE A 272        89.001   22.386   -8.872   1.00 20.31 A
      ATOM   1514   C    ILE A 272        91.858   25.191   -5.932   1.00 19.57 A
      ATOM   1515   O    ILE A 272        93.061   24.978   -5.884   1.00 20.97 A
      ATOM   1516   N    TYR A 273        91.338   26.413   -6.028   1.00 19.42 A
  30  ATOM   1517   CA   TYR A 273        92.157   27.606   -6.041   1.00 18.41 A
      ATOM   1518   CB   TYR A 273        91.272   28.826   -6.294   1.00 18.70 A
      ATOM   1519   CG   TYR A 273        91.998   30.147   -6.252   1.00 19.81 A
      ATOM   1520   CD1  TYR A 273        92.357   30.729   -5.035   1.00 21.25 A
      ATOM   1521   CE1  TYR A 273        93.072   31.936   -4.990   1.00 22.12 A
  35  ATOM   1522   CD2  TYR A 273        92.366   30.804   -7.433   1.00 20.45 A
      ATOM   1523   CE2  TYR A 273        93.081   32.005   -7.403   1.00 20.42 A
      ATOM   1524   CZ   TYR A 273        93.432   32.563   -6.178   1.00 23.33 A
      ATOM   1525   OH   TYR A 273        94.159   33.731   -6.138   1.00 23.26 A
      ATOM   1526   C    TYR A 273        92.848   27.699   -4.687   1.00 19.40 A
  40  ATOM   1527   O    TYR A 273        94.051   27.945   -4.598   1.00 19.44 A
      ATOM   1528   N    GLN A 274        92.079   27.471   -3.632   1.00 19.53 A
      ATOM   1529   CA   GLN A 274        92.602   27.517   -2.278   1.00 21.26 A
      ATOM   1530   CB   GLN A 274        91.450   27.399   -1.290   1.00 22.36 A
      ATOM   1531   CG   GLN A 274        91.838   27.629    0.142   1.00 21.87 A
  45  ATOM   1532   CD   GLN A 274        90.643   27.531    1.054   1.00 23.64 A
      ATOM   1533   OE1  GLN A 274        89.499   27.479    0.585   1.00 22.12 A
      ATOM   1534   NE2  GLN A 274        90.890   27.517    2.369   1.00 24.45 A
      ATOM   1535   C    GLN A 274        93.656   26.435   -1.980   1.00 22.20 A
      ATOM   1536   O    GLN A 274        94.549   26.652   -1.160   1.00 22.03 A
  50  ATOM   1537   N    LEU A 275        93.558   25.275   -2.625   1.00 21.82 A
      ATOM   1538   CA   LEU A 275        94.550   24.223   -2.385   1.00 21.95 A
      ATOM   1539   CB   LEU A 275        94.104   22.886   -3.015   1.00 19.19 A
      ATOM   1540   CG   LEU A 275        92.934   22.153   -2.341   1.00 19.86 A
      ATOM   1541   CD1  LEU A 275        92.528   20.915   -3.134   1.00 19.79 A
  55  ATOM   1542   CD2  LEU A 275        93.333   21.757   -0.938   1.00 16.56 A
      ATOM   1543   C    LEU A 275        95.910   24.630   -2.962   1.00 21.62 A
      ATOM   1544   O    LEU A 275        96.950   24.414   -2.353   1.00 21.98 A
      ATOM   1545   N    VAL A 276        95.884   25.239   -4.137   1.00 20.54 A
      ATOM   1546   CA   VAL A 276        97.095   25.639   -4.828   1.00 21.48 A
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     ATOM   1547  CB   VAL A 276      96.810  25.795  -6.338  1.00 21.76 A
     ATOM   1548  CG1  VAL A 276      98.035  26.269  -7.061  1.00 20.72 A
     ATOM   1549  CG2  VAL A 276      96.332  24.479  -6.908  1.00 21.98 A
     ATOM   1550  C    VAL A 276      97.696  26.946  -4.315  1.00 23.17 A
  5  ATOM   1551  O    VAL A 276      98.913  27.055  -4.141  1.00 24.82 A
     ATOM   1552  N    ALA A 277      96.837  27.934  -4.085  1.00 22.20 A
     ATOM   1553  CA   ALA A 277      97.271  29.230  -3.628  1.00 19.31 A
     ATOM   1554  CB   ALA A 277      96.339  30.293  -4.174  1.00 19.24 A
     ATOM   1555  C    ALA A 277      97.380  29.350  -2.113  1.00 20.10 A
 10  ATOM   1556  O    ALA A 277      98.096  30.222  -1.622  1.00 20.73 A
     ATOM   1557  N    GLY A 278      96.686  28.493  -1.368  1.00 19.16 A
     ATOM   1558  CA   GLY A 278      96.748  28.579   0.084  1.00 18.62 A
     ATOM   1559  C    GLY A 278      95.634  29.425   0.677  1.00 21.09 A
     ATOM   1560  O    GLY A 278      95.462  29.483   1.903  1.00 20.36 A
 15  ATOM   1561  N    LEU A 279      94.865  30.084  -0.190  1.00 22.58 A
     ATOM   1562  CA   LEU A 279      93.742  30.917   0.254  1.00 24.03 A
     ATOM   1563  CB   LEU A 279      94.190  32.365   0.448  1.00 23.98 A
     ATOM   1564  CG   LEU A 279      95.322  32.744   1.396  1.00 25.93 A
     ATOM   1565  CD1  LEU A 279      95.622  34.215   1.140  1.00 25.95 A
 20  ATOM   1566  CD2  LEU A 279      94.950  32.511   2.873  1.00 24.23 A
     ATOM   1567  C    LEU A 279      92.575  30.940  -0.735  1.00 23.96 A
     ATOM   1568  O    LEU A 279      92.759  30.776  -1.939  1.00 23.93 A
     ATOM   1569  N    PRO A 280      91.353  31.151  -0.231  1.00 24.60 A
     ATOM   1570  CD   PRO A 280      90.987  31.360   1.185  1.00 23.93 A
 25  ATOM   1571  CA   PRO A 280      90.177  31.208  -1.109  1.00 24.56 A
     ATOM   1572  CB   PRO A 280      89.024  31.319  -0.116  1.00 24.33 A
     ATOM   1573  CG   PRO A 280      89.656  32.027   1.076  1.00 24.23 A
     ATOM   1574  C    PRO A 280      90.324  32.453  -2.033  1.00 25.82 A
     ATOM   1575  O    PRO A 280      90.892  33.458  -1.632  1.00 27.28 A
 30  ATOM   1576  N    PRO A 281      89.798  32.396  -3.268  1.00 25.40 A
     ATOM   1577  CD   PRO A 281      88.807  31.385  -3.660  1.00 26.04 A
     ATOM   1578  CA   PRO A 281      89.862  33.470  -4.272  1.00 24.99 A
     ATOM   1579  CB   PRO A 281      89.150  32.871  -5.489  1.00 24.76 A
     ATOM   1580  CG   PRO A 281      88.882  31.442  -5.137  1.00 26.48 A
 35  ATOM   1581  C    PRO A 281      89.254  34.836  -3.921  1.00 25.24 A
     ATOM   1582  O    PRO A 281      89.803  35.886  -4.272  1.00 25.07 A
     ATOM   1583  N    PHE A 282      88.103  34.821  -3.264  1.00 24.47 A
     ATOM   1584  CA   PHE A 282      87.435  36.059  -2.918  1.00 24.29 A
     ATOM   1585  CB   PHE A 282      85.964  35.961  -3.320  1.00 23.11 A
 40  ATOM   1586  CG   PHE A 282      85.759  35.596  -4.774  1.00 21.99 A
     ATOM   1587  CD1  PHE A 282      85.936  36.543  -5.775  1.00 20.97 A
     ATOM   1588  CD2  PHE A 282      85.448  34.285  -5.139  1.00 21.76 A
     ATOM   1589  CE1  PHE A 282      85.812  36.194  -7.124  1.00 20.59 A
     ATOM   1590  CE2  PHE A 282      85.325  33.923  -6.469  1.00 20.98 A
 45  ATOM   1591  CZ   PHE A 282      85.509  34.885  -7.471  1.00 23.01 A
     ATOM   1592  C    PHE A 282      87.579  36.366  -1.435  1.00 25.85 A
     ATOM   1593  O    PHE A 282      86.963  35.707  -0.596  1.00 27.04 A
     ATOM   1594  N    ARG A 283      88.414  37.358  -1.124  1.00 27.56 A
     ATOM   1595  CA   ARG A 283      88.676  37.784   0.260  1.00 27.41 A
 50  ATOM   1596  CB   ARG A 283      90.116  37.451   0.648  1.00 28.05 A
     ATOM   1597  CG   ARG A 283      90.523  36.020   0.327  1.00 32.73 A
     ATOM   1598  CD   ARG A 283      91.944  35.722   0.788  1.00 36.54 A
     ATOM   1599  NE   ARG A 283      92.942  36.490   0.043  1.00 39.92 A
     ATOM   1600  CZ   ARG A 283      93.202  36.329  -1.253  1.00 42.59 A
 55  ATOM   1601  NH1  ARG A 283      92.544  35.421  -1.961  1.00 44.54 A
     ATOM   1602  NH2  ARG A 283      94.112  37.090  -1.853  1.00 43.94 A
     ATOM   1603  C    ARG A 283      88.445  39.291   0.394  1.00 27.01 A
     ATOM   1604  O    ARG A 283      88.682  40.047  -0.557  1.00 26.54 A
     ATOM   1605  N    ALA A 284      87.977  39.724   1.568  1.00 26.05 A
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	ATOM	1606	CA	ALA A 284	87.694	41.135	1.812	1.00	23.42	A
	ATOM	1607	CB	ALA A 284	86.529	41.579	0.967	1.00	21.82	A
	ATOM	1608	C	ALA A 284	87.386	41.383	3.280	1.00	24.72	A
	ATOM	1609	O	ALA A 284	87.193	40.440	4.048	1.00	24.83	A
5	ATOM	1610	N	GLY A 285	87.330	42.663	3.659	1.00	25.04	A
	ATOM	1611	CA	GLY A 285	87.055	43.039	5.035	1.00	23.67	A
	ATOM	1612	C	GLY A 285	85.761	42.542	5.652	1.00	25.13	A
	ATOM	1613	O	GLY A 285	85.718	42.302	6.855	1.00	26.60	A
	ATOM	1614	N	ASN A 286	84.700	42.399	4.862	1.00	24.84	A
10	ATOM	1615	CA	ASN A 286	83.418	41.923	5.391	1.00	23.82	A
	ATOM	1616	CB	ASN A 286	82.567	43.098	5.899	1.00	23.66	A
	ATOM	1617	CG	ASN A 286	82.362	44.190	4.843	1.00	24.14	A
	ATOM	1618	OD1	ASN A 286	81.835	43.947	3.747	1.00	22.27	A
	ATOM	1619	ND2	ASN A 286	82.776	45.402	5.178	1.00	24.49	A
15	ATOM	1620	C	ASN A 286	82.672	41.185	4.296	1.00	24.75	A
	ATOM	1621	O	ASN A 286	83.124	41.160	3.153	1.00	25.32	A
	ATOM	1622	N	GLU A 287	81.522	40.610	4.630	1.00	26.04	A
	ATOM	1623	CA	GLU A 287	80.746	39.865	3.641	1.00	27.47	A
	ATOM	1624	CB	GLU A 287	79.549	39.175	4.287	1.00	30.33	A
20	ATOM	1625	CG	GLU A 287	79.935	38.202	5.364	1.00	36.51	A
	ATOM	1626	CD	GLU A 287	78.792	37.288	5.766	1.00	41.45	A
	ATOM	1627	OE1	GLU A 287	77.608	37.712	5.641	1.00	43.02	A
	ATOM	1628	OE2	GLU A 287	79.092	36.155	6.222	1.00	41.33	A
	ATOM	1629	C	GLU A 287	80.250	40.679	2.467	1.00	25.95	A
25	ATOM	1630	O	GLU A 287	80.279	40.203	1.330	1.00	25.67	A
	ATOM	1631	N	TYR A 288	79.772	41.893	2.730	1.00	25.20	A
	ATOM	1632	CA	TYR A 288	79.276	42.731	1.644	1.00	22.91	A
	ATOM	1633	CB	TYR A 288	78.870	44.113	2.152	1.00	22.98	A
	ATOM	1634	CG	TYR A 288	78.459	45.068	1.038	1.00	23.01	A
30	ATOM	1635	CD1	TYR A 288	77.166	45.031	0.478	1.00	24.16	A
	ATOM	1636	CE1	TYR A 288	76.814	45.869	-0.589	1.00	22.73	A
	ATOM	1637	CD2	TYR A 288	79.376	45.965	0.508	1.00	21.34	A
	ATOM	1638	CE2	TYR A 288	79.043	46.796	-0.551	1.00	23.71	A
	ATOM	1639	CZ	TYR A 288	77.771	46.748	-1.099	1.00	25.48	A
35	ATOM	1640	OH	TYR A 288	77.490	47.571	-2.172	1.00	26.98	A
	ATOM	1641	C	TYR A 288	80.352	42.882	0.578	1.00	22.37	A
	ATOM	1642	O	TYR A 288	80.068	42.735	-0.603	1.00	22.65	A
	ATOM	1643	N	LEU A 289	81.590	43.155	0.993	1.00	22.04	A
	ATOM	1644	CA	LEU A 289	82.691	43.326	0.037	1.00	23.92	A
40	ATOM	1645	CB	LEU A 289	83.927	43.907	0.748	1.00	21.71	A
	ATOM	1646	CG	LEU A 289	83.661	45.326	1.298	1.00	23.89	A
	ATOM	1647	CD1	LEU A 289	84.716	45.787	2.326	1.00	17.24	A
	ATOM	1648	CD2	LEU A 289	83.570	46.273	0.118	1.00	19.08	A
	ATOM	1649	C	LEU A 289	83.050	42.025	-0.693	1.00	24.50	A
45	ATOM	1650	O	LEU A 289	83.446	42.042	-1.852	1.00	24.85	A
	ATOM	1651	N	ILE A 290	82.906	40.904	-0.002	1.00	24.71	A
	ATOM	1652	CA	ILE A 290	83.182	39.601	-0.570	1.00	25.86	A
	ATOM	1653	CB	ILE A 290	83.131	38.521	0.528	1.00	26.67	A
	ATOM	1654	CG2	ILE A 290	83.229	37.154	-0.087	1.00	27.57	A
50	ATOM	1655	CG1	ILE A 290	84.282	38.736	1.511	1.00	28.90	A
	ATOM	1656	CD1	ILE A 290	84.173	37.928	2.798	1.00	28.83	A
	ATOM	1657	C	ILE A 290	82.127	39.303	-1.637	1.00	26.89	A
	ATOM	1658	O	ILE A 290	82.446	38.879	-2.757	1.00	26.18	A
	ATOM	1659	N	PHE A 291	80.864	39.531	-1.294	1.00	27.48	A
55	ATOM	1660	CA	PHE A 291	79.789	39.287	-2.249	1.00	28.46	A
	ATOM	1661	CB	PHE A 291	78.434	39.587	-1.620	1.00	27.24	A
	ATOM	1662	CG	PHE A 291	78.079	38.664	-0.496	1.00	27.02	A
	ATOM	1663	CD1	PHE A 291	78.716	37.431	-0.365	1.00	26.90	A
	ATOM	1664	CD2	PHE A 291	77.074	38.996	0.399	1.00	25.83	A

	ATOM	1665	CE1	PHE	A 291	78.353	36.545	0.637	1.00	27.02	A
	ATOM	1666	CE2	PHE	A 291	76.700	38.109	1.412	1.00	28.02	A
	ATOM	1667	CZ	PHE	A 291	77.338	36.882	1.532	1.00	26.74	A
	ATOM	1668	C	PHE	A 291	79.971	40.159	-3.467	1.00	29.11	A
5	ATOM	1669	O	PHE	A 291	79.595	39.787	-4.584	1.00	30.18	A
	ATOM	1670	N	GLN	A 292	80.559	41.324	-3.240	1.00	28.88	A
	ATOM	1671	CA	GLN	A 292	80.783	42.280	-4.304	1.00	30.00	A
	ATOM	1672	CB	GLN	A 292	81.215	43.604	-3.679	1.00	32.57	A
	ATOM	1673	CG	GLN	A 292	81.191	44.799	-4.599	1.00	35.12	A
10	ATOM	1674	CD	GLN	A 292	81.208	46.113	-3.817	1.00	38.65	A
	ATOM	1675	OE1	GLN	A 292	82.159	46.409	-3.078	1.00	39.67	A
	ATOM	1676	NE2	GLN	A 292	80.150	46.903	-3.972	1.00	38.94	A
	ATOM	1677	C	GLN	A 292	81.822	41.755	-5.296	1.00	28.96	A
	ATOM	1678	O	GLN	A 292	81.633	41.844	-6.510	1.00	28.45	A
15	ATOM	1679	N	LYS	A 293	82.910	41.193	-4.787	1.00	26.32	A
	ATOM	1680	CA	LYS	A 293	83.930	40.661	-5.669	1.00	26.90	A
	ATOM	1681	CB	LYS	A 293	85.174	40.319	-4.858	1.00	28.03	A
	ATOM	1682	CG	LYS	A 293	85.777	41.539	-4.177	1.00	28.52	A
	ATOM	1683	CD	LYS	A 293	87.065	41.208	-3.482	1.00	29.14	A
20	ATOM	1684	CE	LYS	A 293	87.912	42.449	-3.269	1.00	30.09	A
	ATOM	1685	NZ	LYS	A 293	89.165	42.157	-2.490	1.00	30.06	A
	ATOM	1686	C	LYS	A 293	83.414	39.432	-6.434	1.00	26.13	A
	ATOM	1687	O	LYS	A 293	83.721	39.231	-7.617	1.00	26.02	A
	ATOM	1688	N	ILE	A 294	82.617	38.621	-5.755	1.00	24.49	A
25	ATOM	1689	CA	ILE	A 294	82.047	37.429	-6.362	1.00	24.40	A
	ATOM	1690	CB	ILE	A 294	81.168	36.680	-5.340	1.00	23.24	A
	ATOM	1691	CG2	ILE	A 294	80.154	35.763	-6.046	1.00	21.00	A
	ATOM	1692	CG1	ILE	A 294	82.072	35.929	-4.365	1.00	19.23	A
	ATOM	1693	CD1	ILE	A 294	81.388	35.559	-3.067	1.00	17.91	A
30	ATOM	1694	C	ILE	A 294	81.224	37.744	-7.608	1.00	26.38	A
	ATOM	1695	O	ILE	A 294	81.428	37.139	-8.661	1.00	25.96	A
	ATOM	1696	N	ILE	A 295	80.303	38.694	-7.505	1.00	28.38	A
	ATOM	1697	CA	ILE	A 295	79.467	39.018	-8.659	1.00	31.11	A
	ATOM	1698	CB	ILE	A 295	78.243	39.852	-8.248	1.00	31.46	A
35	ATOM	1699	CG2	ILE	A 295	77.548	39.181	-7.068	1.00	32.78	A
	ATOM	1700	CG1	ILE	A 295	78.669	41.268	-7.871	1.00	31.79	A
	ATOM	1701	CD1	ILE	A 295	77.518	42.132	-7.438	1.00	33.46	A
	ATOM	1702	C	ILE	A 295	80.201	39.731	-9.798	1.00	31.35	A
	ATOM	1703	O	ILE	A 295	79.709	39.784	-10.930	1.00	32.03	A
40	ATOM	1704	N	LYS	A 296	81.374	40.269	-9.511	1.00	30.68	A
	ATOM	1705	CA	LYS	A 296	82.129	40.937	-10.552	1.00	31.64	A
	ATOM	1706	CB	LYS	A 296	82.683	42.275	-10.041	1.00	32.01	A
	ATOM	1707	CG	LYS	A 296	81.605	43.213	-9.520	1.00	34.12	A
	ATOM	1708	CD	LYS	A 296	82.184	44.441	-8.841	1.00	37.38	A
45	ATOM	1709	CE	LYS	A 296	82.299	45.609	-9.803	1.00	40.30	A
	ATOM	1710	NZ	LYS	A 296	82.864	46.819	-9.119	1.00	42.94	A
	ATOM	1711	C	LYS	A 296	83.258	40.010	-10.966	1.00	31.87	A
	ATOM	1712	O	LYS	A 296	84.135	40.398	-11.745	1.00	32.98	A
	ATOM	1713	N	LEU	A 297	83.227	38.780	-10.443	1.00	30.62	A
50	ATOM	1714	CA	LEU	A 297	84.253	37.775	-10.735	1.00	29.78	A
	ATOM	1715	CB	LEU	A 297	84.100	37.253	-12.169	1.00	29.42	A
	ATOM	1716	CG	LEU	A 297	84.802	35.931	-12.527	1.00	29.13	A
	ATOM	1717	CD1	LEU	A 297	84.142	34.776	-11.783	1.00	27.91	A
	ATOM	1718	CD2	LEU	A 297	84.725	35.682	-14.024	1.00	26.86	A
55	ATOM	1719	C	LEU	A 297	85.622	38.436	-10.565	1.00	29.62	A
	ATOM	1720	O	LEU	A 297	86.489	38.333	-11.419	1.00	28.99	A
	ATOM	1721	N	GLU	A 298	85.807	39.091	-9.427	1.00	29.81	A
	ATOM	1722	CA	GLU	A 298	87.027	39.826	-9.143	1.00	30.88	A
	ATOM	1723	CB	GLU	A 298	86.622	41.166	-8.510	1.00	33.22	A

	ATOM	1724	CG	GLU A 298	87.754	42.136	-8.228	1.00	38.19 A
	ATOM	1725	CD	GLU A 298	87.317	43.274	-7.303	1.00	41.34 A
	ATOM	1726	OE1	GLU A 298	86.416	44.054	-7.684	1.00	43.93 A
	ATOM	1727	OE2	GLU A 298	87.867	43.382	-6.187	1.00	43.19 A
5	ATOM	1728	C	GLU A 298	88.071	39.110	-8.269	1.00	29.28 A
	ATOM	1729	O	GLU A 298	88.066	39.230	-7.045	1.00	30.04 A
	ATOM	1730	N	TYR A 299	88.972	38.375	-8.906	1.00	26.46 A
	ATOM	1731	CA	TYR A 299	90.034	37.669	-8.194	1.00	26.46 A
	ATOM	1732	CB	TYR A 299	89.548	36.315	-7.640	1.00	24.23 A
10	ATOM	1733	CG	TYR A 299	89.403	35.252	-8.709	1.00	23.32 A
	ATOM	1734	CD1	TYR A 299	88.369	35.318	-9.653	1.00	23.42 A
	ATOM	1735	CE1	TYR A 299	88.274	34.392	-10.686	1.00	23.13 A
	ATOM	1736	CD2	TYR A 299	90.337	34.227	-8.829	1.00	21.77 A
	ATOM	1737	CE2	TYR A 299	90.250	33.292	-9.864	1.00	21.81 A
15	ATOM	1738	CZ	TYR A 299	89.214	33.379	-10.784	1.00	22.35 A
	ATOM	1739	OH	TYR A 299	89.089	32.444	-11.780	1.00	21.61 A
	ATOM	1740	C	TYR A 299	91.102	37.416	-9.245	1.00	28.31 A
	ATOM	1741	O	TYR A 299	90.864	37.622	-10.426	1.00	27.25 A
	ATOM	1742	N	ASP A 300	92.277	36.959	-8.844	1.00	30.57 A
20	ATOM	1743	CA	ASP A 300	93.282	36.687	-9.851	1.00	33.57 A
	ATOM	1744	CB	ASP A 300	94.012	37.980	-10.193	1.00	38.77 A
	ATOM	1745	CG	ASP A 300	94.382	38.768	-8.968	1.00	43.17 A
	ATOM	1746	OD1	ASP A 300	95.245	38.283	-8.197	1.00	46.59 A
	ATOM	1747	OD2	ASP A 300	93.802	39.865	-8.773	1.00	45.78 A
25	ATOM	1748	C	ASP A 300	94.232	35.607	-9.364	1.00	33.20 A
	ATOM	1749	O	ASP A 300	94.311	35.354	-8.169	1.00	33.46 A
	ATOM	1750	N	PHE A 301	94.937	34.959	-10.287	1.00	32.16 A
	ATOM	1751	CA	PHE A 301	95.853	33.892	-9.910	1.00	33.41 A
	ATOM	1752	CB	PHE A 301	95.922	32.813	-11.001	1.00	32.89 A
30	ATOM	1753	CG	PHE A 301	94.590	32.240	-11.403	1.00	33.05 A
	ATOM	1754	CD1	PHE A 301	93.763	32.921	-12.297	1.00	31.61 A
	ATOM	1755	CD2	PHE A 301	94.171	31.006	-10.905	1.00	30.94 A
	ATOM	1756	CE1	PHE A 301	92.548	32.387	-12.687	1.00	31.29 A
	ATOM	1757	CE2	PHE A 301	92.961	30.466	-11.287	1.00	31.42 A
35	ATOM	1758	CZ	PHE A 301	92.142	31.157	-12.184	1.00	32.69 A
	ATOM	1759	C	PHE A 301	97.287	34.359	-9.649	1.00	34.23 A
	ATOM	1760	O	PHE A 301	97.784	35.274	-10.303	1.00	33.66 A
	ATOM	1761	N	PRO A 302	97.962	33.750	-8.665	1.00	35.45 A
	ATOM	1762	CD	PRO A 302	97.426	32.932	-7.564	1.00	35.55 A
40	ATOM	1763	CA	PRO A 302	99.347	34.145	-8.395	1.00	35.82 A
	ATOM	1764	CB	PRO A 302	99.612	33.571	-7.009	1.00	35.09 A
	ATOM	1765	CG	PRO A 302	98.682	32.401	-6.933	1.00	34.93 A
	ATOM	1766	C	PRO A 302	100.214	33.506	-9.485	1.00	37.48 A
	ATOM	1767	O	PRO A 302	99.830	32.504	-10.083	1.00	37.30 A
45	ATOM	1768	N	ALA A 303	101.370	34.100	-9.744	1.00	39.16 A
	ATOM	1769	CA	ALA A 303	102.293	33.641	-10.775	1.00	39.50 A
	ATOM	1770	CB	ALA A 303	103.612	34.393	-10.640	1.00	39.58 A
	ATOM	1771	C	ALA A 303	102.577	32.148	-10.832	1.00	41.05 A
	ATOM	1772	O	ALA A 303	102.642	31.569	-11.920	1.00	42.39 A
50	ATOM	1773	N	ALA A 304	102.758	31.526	-9.671	1.00	40.38 A
	ATOM	1774	CA	ALA A 304	103.099	30.105	-9.614	1.00	39.93 A
	ATOM	1775	CB	ALA A 304	103.627	29.772	-8.212	1.00	41.64 A
	ATOM	1776	C	ALA A 304	102.025	29.089	-10.002	1.00	38.27 A
	ATOM	1777	O	ALA A 304	102.343	27.993	-10.453	1.00	39.29 A
55	ATOM	1778	N	PHE A 305	100.764	29.453	-9.813	1.00	35.83 A
	ATOM	1779	CA	PHE A 305	99.614	28.587	-10.085	1.00	33.62 A
	ATOM	1780	CB	PHE A 305	98.376	29.475	-10.278	1.00	32.70 A
	ATOM	1781	CG	PHE A 305	97.096	28.857	-9.796	1.00	31.41 A
	ATOM	1782	CD1	PHE A 305	96.422	27.915	-10.574	1.00	30.30 A

	ATOM	1783	CD2	PHE	A	305	96.556	29.225	-8.562	1.00	30.99	A
	ATOM	1784	CE1	PHE	A	305	95.230	27.350	-10.136	1.00	29.76	A
	ATOM	1785	CE2	PHE	A	305	95.352	28.663	-8.105	1.00	30.08	A
	ATOM	1786	CZ	PHE	A	305	94.689	27.725	-8.897	1.00	30.22	A
5	ATOM	1787	C	PHE	A	305	99.735	27.580	-11.241	1.00	32.03	A
	ATOM	1788	O	PHE	A	305	99.767	27.962	-12.405	1.00	32.54	A
	ATOM	1789	N	PHE	A	306	99.781	26.290	-10.914	1.00	31.58	A
	ATOM	1790	CA	PHE	A	306	99.886	25.235	-11.932	1.00	30.32	A
	ATOM	1791	CB	PHE	A	306	99.518	23.875	-11.338	1.00	29.86	A
10	ATOM	1792	CG	PHE	A	306	100.087	23.639	-9.971	1.00	30.29	A
	ATOM	1793	CD1	PHE	A	306	101.447	23.783	-9.733	1.00	30.37	A
	ATOM	1794	CD2	PHE	A	306	99.259	23.275	-8.919	1.00	30.23	A
	ATOM	1795	CE1	PHE	A	306	101.975	23.570	-8.465	1.00	30.98	A
	ATOM	1796	CE2	PHE	A	306	99.773	23.061	-7.648	1.00	30.91	A
15	ATOM	1797	CZ	PHE	A	306	101.136	23.210	-7.418	1.00	31.14	A
	ATOM	1798	C	PHE	A	306	98.949	25.545	-13.096	1.00	29.48	A
	ATOM	1799	O	PHE	A	306	97.738	25.631	-12.920	1.00	30.39	A
	ATOM	1800	N	PRO	A	307	99.501	25.701	-14.309	1.00	28.76	A
	ATOM	1801	CD	PRO	A	307	100.934	25.575	-14.635	1.00	27.67	A
20	ATOM	1802	CA	PRO	A	307	98.731	26.014	-15.520	1.00	27.24	A
	ATOM	1803	CB	PRO	A	307	99.757	25.848	-16.635	1.00	25.23	A
	ATOM	1804	CG	PRO	A	307	101.010	26.262	-15.978	1.00	25.61	A
	ATOM	1805	C	PRO	A	307	97.457	25.221	-15.787	1.00	25.86	A
	ATOM	1806	O	PRO	A	307	96.419	25.808	-16.098	1.00	24.65	A
25	ATOM	1807	N	LYS	A	308	97.521	23.901	-15.682	1.00	25.13	A
	ATOM	1808	CA	LYS	A	308	96.330	23.109	-15.952	1.00	24.53	A
	ATOM	1809	CB	LYS	A	308	96.689	21.640	-16.136	1.00	24.86	A
	ATOM	1810	CG	LYS	A	308	97.361	21.413	-17.490	1.00	25.50	A
	ATOM	1811	CD	LYS	A	308	97.987	20.047	-17.616	1.00	27.33	A
30	ATOM	1812	CE	LYS	A	308	98.678	19.886	-18.961	1.00	29.39	A
	ATOM	1813	NZ	LYS	A	308	99.232	18.505	-19.146	1.00	32.38	A
	ATOM	1814	C	LYS	A	308	95.282	23.293	-14.890	1.00	24.82	A
	ATOM	1815	O	LYS	A	308	94.085	23.281	-15.193	1.00	24.89	A
	ATOM	1816	N	ALA	A	309	95.716	23.489	-13.647	1.00	24.73	A
35	ATOM	1817	CA	ALA	A	309	94.758	23.716	-12.573	1.00	25.03	A
	ATOM	1818	CB	ALA	A	309	95.445	23.662	-11.208	1.00	24.10	A
	ATOM	1819	C	ALA	A	309	94.140	25.094	-12.816	1.00	25.34	A
	ATOM	1820	O	ALA	A	309	92.934	25.273	-12.679	1.00	26.34	A
	ATOM	1821	N	ARG	A	310	94.958	26.067	-13.198	1.00	26.07	A
40	ATOM	1822	CA	ARG	A	310	94.419	27.396	-13.453	1.00	28.32	A
	ATOM	1823	CB	ARG	A	310	95.513	28.359	-13.908	1.00	29.31	A
	ATOM	1824	CG	ARG	A	310	94.940	29.708	-14.288	1.00	31.58	A
	ATOM	1825	CD	ARG	A	310	95.917	30.588	-15.030	1.00	31.47	A
	ATOM	1826	NE	ARG	A	310	95.275	31.825	-15.473	1.00	34.52	A
45	ATOM	1827	CZ	ARG	A	310	95.771	33.050	-15.276	1.00	35.51	A
	ATOM	1828	NH1	ARG	A	310	96.929	33.205	-14.633	1.00	33.99	A
	ATOM	1829	NH2	ARG	A	310	95.106	34.124	-15.720	1.00	32.10	A
	ATOM	1830	C	ARG	A	310	93.331	27.348	-14.521	1.00	29.03	A
	ATOM	1831	O	ARG	A	310	92.308	28.034	-14.418	1.00	29.32	A
50	ATOM	1832	N	ASP	A	311	93.548	26.536	-15.551	1.00	29.06	A
	ATOM	1833	CA	ASP	A	311	92.571	26.432	-16.620	1.00	29.87	A
	ATOM	1834	CB	ASP	A	311	93.156	25.636	-17.776	1.00	31.71	A
	ATOM	1835	CG	ASP	A	311	92.207	25.537	-18.953	1.00	34.71	A
	ATOM	1836	OD1	ASP	A	311	91.288	24.690	-18.912	1.00	36.90	A
55	ATOM	1837	OD2	ASP	A	311	92.378	26.312	-19.918	1.00	36.33	A
	ATOM	1838	C	ASP	A	311	91.264	25.800	-16.128	1.00	29.70	A
	ATOM	1839	O	ASP	A	311	90.169	26.238	-16.513	1.00	29.95	A
	ATOM	1840	N	LEU	A	312	91.383	24.778	-15.282	1.00	26.64	A
	ATOM	1841	CA	LEU	A	312	90.215	24.112	-14.715	1.00	24.92	A

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      ATOM   1842   CB   LEU A 312      90.645  22.911 -13.869   1.00  23.93  A
      ATOM   1843   CG   LEU A 312      89.504  22.112 -13.227   1.00  24.48  A
      ATOM   1844   CD1  LEU A 312      88.569  21.610 -14.296   1.00  25.07  A
      ATOM   1845   CD2  LEU A 312      90.061  20.945 -12.460   1.00  25.13  A
   5  ATOM   1846   C    LEU A 312      89.412  25.095 -13.841   1.00  23.85  A
      ATOM   1847   O    LEU A 312      88.182  25.136 -13.896   1.00  21.21  A
      ATOM   1848   N    VAL A 313      90.121  25.886 -13.042   1.00  23.12  A
      ATOM   1849   CA   VAL A 313      89.484  26.865 -12.171   1.00  23.55  A
      ATOM   1850   CB   VAL A 313      90.536  27.583 -11.297   1.00  22.33  A
  10  ATOM   1851   CG1  VAL A 313      89.898  28.752 -10.559   1.00  19.05  A
      ATOM   1852   CG2  VAL A 313      91.144  26.607 -10.305   1.00  19.89  A
      ATOM   1853   C    VAL A 313      88.701  27.915 -12.975   1.00  25.59  A
      ATOM   1854   O    VAL A 313      87.590  28.305 -12.605   1.00  26.57  A
      ATOM   1855   N    GLU A 314      89.278  28.378 -14.076   1.00  26.08  A
  15  ATOM   1856   CA   GLU A 314      88.598  29.370 -14.895   1.00  26.79  A
      ATOM   1857   CB   GLU A 314      89.543  29.928 -15.948   1.00  27.50  A
      ATOM   1858   CG   GLU A 314      90.739  30.639 -15.381   1.00  32.29  A
      ATOM   1859   CD   GLU A 314      91.687  31.094 -16.463   1.00  35.85  A
      ATOM   1860   OE1  GLU A 314      91.967  30.280 -17.375   1.00  38.06  A
  20  ATOM   1861   OE2  GLU A 314      92.157  32.257 -16.399   1.00  38.48  A
      ATOM   1862   C    GLU A 314      87.370  28.787 -15.577   1.00  26.22  A
      ATOM   1863   O    GLU A 314      86.499  29.527 -16.038   1.00  27.23  A
      ATOM   1864   N    LYS A 315      87.300  27.464 -15.662   1.00  24.74  A
      ATOM   1865   CA   LYS A 315      86.151  26.832 -16.294   1.00  23.60  A
  25  ATOM   1866   CB   LYS A 315      86.578  25.584 -17.073   1.00  23.69  A
      ATOM   1867   CG   LYS A 315      87.393  25.865 -18.344   1.00  22.41  A
      ATOM   1868   CD   LYS A 315      87.825  24.545 -18.968   1.00  25.68  A
      ATOM   1869   CE   LYS A 315      88.768  24.695 -20.155   1.00  24.86  A
      ATOM   1870   NZ   LYS A 315      88.082  25.219 -21.346   1.00  28.62  A
  30  ATOM   1871   C    LYS A 315      85.119  26.471 -15.230   1.00  23.42  A
      ATOM   1872   O    LYS A 315      84.043  25.970 -15.541   1.00  25.37  A
      ATOM   1873   N    LEU A 316      85.454  26.730 -13.970   1.00  21.88  A
      ATOM   1874   CA   LEU A 316      84.549  26.461 -12.862   1.00  20.21  A
      ATOM   1875   CB   LEU A 316      85.272  25.705 -11.767   1.00  19.57  A
  35  ATOM   1876   CG   LEU A 316      85.409  24.221 -12.078   1.00  21.14  A
      ATOM   1877   CD1  LEU A 316      86.272  23.552 -11.009   1.00  19.21  A
      ATOM   1878   CD2  LEU A 316      84.000  23.600 -12.166   1.00  18.59  A
      ATOM   1879   C    LEU A 316      83.996  27.758 -12.290   1.00  21.31  A
      ATOM   1880   O    LEU A 316      82.811  27.848 -11.955   1.00  18.79  A
  40  ATOM   1881   N    LEU A 317      84.865  28.762 -12.175   1.00  20.59  A
      ATOM   1882   CA   LEU A 317      84.446  30.038 -11.646   1.00  21.64  A
      ATOM   1883   CB   LEU A 317      85.606  30.707 -10.900   1.00  21.42  A
      ATOM   1884   CG   LEU A 317      86.130  29.892  -9.711   1.00  21.80  A
      ATOM   1885   CD1  LEU A 317      87.299  30.599  -9.047   1.00  23.09  A
  45  ATOM   1886   CD2  LEU A 317      85.031  29.688  -8.724   1.00  20.34  A
      ATOM   1887   C    LEU A 317      83.940  30.890 -12.810   1.00  23.34  A
      ATOM   1888   O    LEU A 317      84.568  31.859 -13.242   1.00  23.29  A
      ATOM   1889   N    VAL A 318      82.786  30.485 -13.324   1.00  24.06  A
      ATOM   1890   CA   VAL A 318      82.135  31.161 -14.436   1.00  23.46  A
  50  ATOM   1891   CB   VAL A 318      81.829  30.150 -15.547   1.00  24.32  A
      ATOM   1892   CG1  VAL A 318      81.061  30.828 -16.670   1.00  22.57  A
      ATOM   1893   CG2  VAL A 318      83.136  29.524 -16.049   1.00  20.68  A
      ATOM   1894   C    VAL A 318      80.838  31.765 -13.918   1.00  24.59  A
      ATOM   1895   O    VAL A 318      80.050  31.086 -13.250   1.00  24.86  A
  55  ATOM   1896   N    LEU A 319      80.603  33.036 -14.215   1.00  24.95  A
      ATOM   1897   CA   LEU A 319      79.383  33.688 -13.731   1.00  25.79  A
      ATOM   1898   CB   LEU A 319      79.379  35.157 -14.154   1.00  25.38  A
      ATOM   1899   CG   LEU A 319      80.466  35.963 -13.417   1.00  27.04  A
      ATOM   1900   CD1  LEU A 319      80.452  37.421 -13.869   1.00  25.54  A
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	ATOM	1901	CD2	LEU	A	319	80.241	35.872	-11.907	1.00	23.27	A
	ATOM	1902	C	LEU	A	319	78.077	32.989	-14.141	1.00	26.05	A
	ATOM	1903	O	LEU	A	319	77.171	32.819	-13.319	1.00	27.69	A
	ATOM	1904	N	ASP	A	320	77.982	32.580	-15.400	1.00	25.08	A
5	ATOM	1905	CA	ASP	A	320	76.804	31.881	-15.892	1.00	24.00	A
	ATOM	1906	CB	ASP	A	320	76.788	31.907	-17.420	1.00	24.02	A
	ATOM	1907	CG	ASP	A	320	75.597	31.175	-17.996	1.00	27.27	A
	ATOM	1908	OD1	ASP	A	320	75.009	30.337	-17.271	1.00	29.66	A
	ATOM	1909	OD2	ASP	A	320	75.253	31.417	-19.175	1.00	30.03	A
10	ATOM	1910	C	ASP	A	320	76.846	30.427	-15.396	1.00	24.04	A
	ATOM	1911	O	ASP	A	320	77.661	29.623	-15.846	1.00	25.11	A
	ATOM	1912	N	ALA	A	321	75.940	30.094	-14.489	1.00	23.73	A
	ATOM	1913	CA	ALA	A	321	75.867	28.770	-13.887	1.00	23.58	A
	ATOM	1914	CB	ALA	A	321	74.710	28.720	-12.916	1.00	23.62	A
15	ATOM	1915	C	ALA	A	321	75.765	27.599	-14.853	1.00	24.90	A
	ATOM	1916	O	ALA	A	321	76.221	26.497	-14.549	1.00	24.36	A
	ATOM	1917	N	THR	A	322	75.176	27.834	-16.019	1.00	25.50	A
	ATOM	1918	CA	THR	A	322	75.008	26.772	-17.011	1.00	24.60	A
	ATOM	1919	CB	THR	A	322	73.816	27.064	-17.909	1.00	23.09	A
20	ATOM	1920	OG1	THR	A	322	74.079	28.263	-18.646	1.00	23.74	A
	ATOM	1921	CG2	THR	A	322	72.568	27.260	-17.080	1.00	20.71	A
	ATOM	1922	C	THR	A	322	76.238	26.596	-17.893	1.00	25.24	A
	ATOM	1923	O	THR	A	322	76.221	25.807	-18.832	1.00	26.45	A
	ATOM	1924	N	LYS	A	323	77.300	27.331	-17.592	1.00	25.05	A
25	ATOM	1925	CA	LYS	A	323	78.526	27.239	-18.366	1.00	26.46	A
	ATOM	1926	CB	LYS	A	323	78.972	28.627	-18.823	1.00	28.68	A
	ATOM	1927	CG	LYS	A	323	78.050	29.304	-19.814	1.00	31.27	A
	ATOM	1928	CD	LYS	A	323	78.470	29.004	-21.240	1.00	34.38	A
	ATOM	1929	CE	LYS	A	323	77.850	29.986	-22.243	1.00	35.12	A
30	ATOM	1930	NZ	LYS	A	323	76.363	29.936	-22.251	1.00	36.71	A
	ATOM	1931	C	LYS	A	323	79.660	26.621	-17.556	1.00	26.39	A
	ATOM	1932	O	LYS	A	323	80.795	26.615	-18.010	1.00	28.51	A
	ATOM	1933	N	ARG	A	324	79.372	26.114	-16.360	1.00	24.50	A
	ATOM	1934	CA	ARG	A	324	80.429	25.524	-15.543	1.00	23.37	A
35	ATOM	1935	CB	ARG	A	324	80.087	25.633	-14.049	1.00	23.41	A
	ATOM	1936	CG	ARG	A	324	80.233	27.034	-13.520	1.00	21.60	A
	ATOM	1937	CD	ARG	A	324	79.594	27.220	-12.173	1.00	21.55	A
	ATOM	1938	NE	ARG	A	324	79.245	28.624	-11.986	1.00	19.69	A
	ATOM	1939	CZ	ARG	A	324	78.273	29.054	-11.191	1.00	19.84	A
40	ATOM	1940	NH1	ARG	A	324	77.555	28.183	-10.496	1.00	16.83	A
	ATOM	1941	NH2	ARG	A	324	77.990	30.358	-11.129	1.00	21.41	A
	ATOM	1942	C	ARG	A	324	80.717	24.085	-15.897	1.00	22.63	A
	ATOM	1943	O	ARG	A	324	79.798	23.280	-16.058	1.00	24.44	A
	ATOM	1944	N	LEU	A	325	82.000	23.767	-16.023	1.00	20.68	A
45	ATOM	1945	CA	LEU	A	325	82.414	22.411	-16.352	1.00	20.98	A
	ATOM	1946	CB	LEU	A	325	83.952	22.330	-16.386	1.00	20.82	A
	ATOM	1947	CG	LEU	A	325	84.596	21.147	-17.131	1.00	23.08	A
	ATOM	1948	CD1	LEU	A	325	84.149	21.194	-18.595	1.00	21.39	A
	ATOM	1949	CD2	LEU	A	325	86.132	21.173	-17.038	1.00	20.00	A
50	ATOM	1950	C	LEU	A	325	81.840	21.454	-15.290	1.00	20.43	A
	ATOM	1951	O	LEU	A	325	82.062	21.633	-14.097	1.00	18.45	A
	ATOM	1952	N	GLY	A	326	81.076	20.456	-15.725	1.00	21.33	A
	ATOM	1953	CA	GLY	A	326	80.501	19.513	-14.778	1.00	20.60	A
	ATOM	1954	C	GLY	A	326	78.984	19.523	-14.701	1.00	22.39	A
55	ATOM	1955	O	GLY	A	326	78.383	18.493	-14.378	1.00	22.59	A
	ATOM	1956	N	CYS	A	327	78.358	20.664	-15.009	1.00	23.36	A
	ATOM	1957	CA	CYS	A	327	76.896	20.771	-14.963	1.00	25.18	A
	ATOM	1958	CB	CYS	A	327	76.453	22.246	-14.889	1.00	25.79	A
	ATOM	1959	SG	CYS	A	327	76.742	23.237	-16.364	1.00	31.42	A

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	ATOM	1960	C	CYS A 327	76.229	20.074	-16.148	1.00	24.99 A
	ATOM	1961	O	CYS A 327	76.887	19.743	-17.129	1.00	24.31 A
	ATOM	1962	N	ALA A 328	74.923	19.847	-16.040	1.00	26.34 A
	ATOM	1963	CA	ALA A 328	74.157	19.172	-17.094	1.00	27.51 A
5	ATOM	1964	CB	ALA A 328	72.703	18.949	-16.629	1.00	26.81 A
	ATOM	1965	C	ALA A 328	74.179	19.905	-18.443	1.00	28.11 A
	ATOM	1966	O	ALA A 328	74.243	19.274	-19.501	1.00	27.66 A
	ATOM	1967	N	GLU A 329	74.144	21.231	-18.418	1.00	28.05 A
	ATOM	1968	CA	GLU A 329	74.172	21.973	-19.668	1.00	29.54 A
10	ATOM	1969	CB	GLU A 329	73.915	23.458	-19.428	1.00	32.18 A
	ATOM	1970	CG	GLU A 329	72.539	23.783	-18.863	1.00	37.89 A
	ATOM	1971	CD	GLU A 329	72.418	23.503	-17.374	1.00	41.37 A
	ATOM	1972	OE1	GLU A 329	73.464	23.308	-16.711	1.00	43.80 A
	ATOM	1973	OE2	GLU A 329	71.273	23.495	-16.863	1.00	43.66 A
15	ATOM	1974	C	GLU A 329	75.514	21.807	-20.377	1.00	29.08 A
	ATOM	1975	O	GLU A 329	75.602	21.927	-21.605	1.00	27.73 A
	ATOM	1976	N	MET A 330	76.559	21.540	-19.598	1.00	27.54 A
	ATOM	1977	CA	MET A 330	77.894	21.359	-20.148	1.00	25.71 A
	ATOM	1978	CB	MET A 330	78.945	21.963	-19.219	1.00	27.88 A
20	ATOM	1979	CG	MET A 330	78.964	23.489	-19.209	1.00	30.29 A
	ATOM	1980	SD	MET A 330	79.429	24.194	-20.819	1.00	34.04 A
	ATOM	1981	CE	MET A 330	81.187	23.670	-20.936	1.00	29.55 A
	ATOM	1982	C	MET A 330	78.156	19.884	-20.343	1.00	24.53 A
	ATOM	1983	O	MET A 330	79.290	19.473	-20.575	1.00	22.65 A
25	ATOM	1984	N	GLU A 331	77.089	19.095	-20.221	1.00	22.87 A
	ATOM	1985	CA	GLU A 331	77.139	17.654	-20.415	1.00	21.38 A
	ATOM	1986	CB	GLU A 331	77.854	17.339	-21.735	1.00	22.71 A
	ATOM	1987	CG	GLU A 331	76.903	16.916	-22.837	1.00	23.01 A
	ATOM	1988	CD	GLU A 331	75.599	17.720	-22.875	1.00	24.76 A
30	ATOM	1989	OE1	GLU A 331	75.570	18.830	-23.441	1.00	26.12 A
	ATOM	1990	OE2	GLU A 331	74.588	17.230	-22.337	1.00	24.22 A
	ATOM	1991	C	GLU A 331	77.671	16.765	-19.290	1.00	21.01 A
	ATOM	1992	O	GLU A 331	78.075	15.619	-19.517	1.00	19.50 A
	ATOM	1993	N	GLY A 332	77.675	17.284	-18.071	1.00	19.73 A
35	ATOM	1994	CA	GLY A 332	78.056	16.445	-16.954	1.00	17.80 A
	ATOM	1995	C	GLY A 332	79.494	16.243	-16.570	1.00	17.28 A
	ATOM	1996	O	GLY A 332	80.381	17.013	-16.934	1.00	16.11 A
	ATOM	1997	N	TYR A 333	79.701	15.151	-15.842	1.00	16.52 A
	ATOM	1998	CA	TYR A 333	80.997	14.791	-15.305	1.00	16.75 A
40	ATOM	1999	CB	TYR A 333	80.787	13.854	-14.115	1.00	16.95 A
	ATOM	2000	CG	TYR A 333	80.369	14.624	-12.893	1.00	18.08 A
	ATOM	2001	CD1	TYR A 333	81.332	15.207	-12.059	1.00	18.77 A
	ATOM	2002	CE1	TYR A 333	80.971	16.035	-10.982	1.00	17.69 A
	ATOM	2003	CD2	TYR A 333	79.021	14.877	-12.620	1.00	17.08 A
45	ATOM	2004	CE2	TYR A 333	78.646	15.713	-11.538	1.00	19.05 A
	ATOM	2005	CZ	TYR A 333	79.640	16.287	-10.728	1.00	18.04 A
	ATOM	2006	OH	TYR A 333	79.322	17.126	-9.682	1.00	18.69 A
	ATOM	2007	C	TYR A 333	82.051	14.240	-16.238	1.00	16.78 A
	ATOM	2008	O	TYR A 333	83.248	14.393	-15.977	1.00	16.04 A
50	ATOM	2009	N	GLY A 334	81.633	13.598	-17.321	1.00	16.63 A
	ATOM	2010	CA	GLY A 334	82.624	13.082	-18.244	1.00	17.02 A
	ATOM	2011	C	GLY A 334	83.576	14.194	-18.683	1.00	17.47 A
	ATOM	2012	O	GLY A 334	84.802	14.063	-18.562	1.00	17.18 A
	ATOM	2013	N	PRO A 335	83.039	15.315	-19.195	1.00	17.04 A
55	ATOM	2014	CD	PRO A 335	81.650	15.611	-19.590	1.00	16.18 A
	ATOM	2015	CA	PRO A 335	83.940	16.382	-19.621	1.00	17.35 A
	ATOM	2016	CB	PRO A 335	82.991	17.441	-20.178	1.00	17.48 A
	ATOM	2017	CG	PRO A 335	81.857	16.605	-20.713	1.00	18.64 A
	ATOM	2018	C	PRO A 335	84.786	16.883	-18.480	1.00	18.48 A

	ATOM	2019	O	PRO A 335	85.963	17.131	-18.661	1.00	20.84 A
	ATOM	2020	N	LEU A 336	84.204	17.034	-17.299	1.00	19.46 A
	ATOM	2021	CA	LEU A 336	84.986	17.504	-16.153	1.00	19.38 A
	ATOM	2022	CB	LEU A 336	84.071	17.692	-14.937	1.00	18.98 A
5	ATOM	2023	CG	LEU A 336	84.765	17.982	-13.604	1.00	18.01 A
	ATOM	2024	CD1	LEU A 336	85.534	19.289	-13.690	1.00	16.66 A
	ATOM	2025	CD2	LEU A 336	83.724	18.055	-12.491	1.00	18.81 A
	ATOM	2026	C	LEU A 336	86.132	16.528	-15.815	1.00	19.32 A
	ATOM	2027	O	LEU A 336	87.293	16.932	-15.683	1.00	18.65 A
10	ATOM	2028	N	LYS A 337	85.808	15.244	-15.688	1.00	18.38 A
	ATOM	2029	CA	LYS A 337	86.821	14.240	-15.387	1.00	18.89 A
	ATOM	2030	CB	LYS A 337	86.147	12.900	-15.082	1.00	17.70 A
	ATOM	2031	CG	LYS A 337	85.460	12.933	-13.727	1.00	19.89 A
	ATOM	2032	CD	LYS A 337	84.450	11.817	-13.523	1.00	22.66 A
15	ATOM	2033	CE	LYS A 337	85.089	10.453	-13.372	1.00	22.78 A
	ATOM	2034	NZ	LYS A 337	84.025	9.444	-13.088	1.00	25.28 A
	ATOM	2035	C	LYS A 337	87.865	14.101	-16.504	1.00	20.07 A
	ATOM	2036	O	LYS A 337	88.996	13.671	-16.254	1.00	20.47 A
	ATOM	2037	N	ALA A 338	87.491	14.486	-17.725	1.00	20.38 A
20	ATOM	2038	CA	ALA A 338	88.393	14.441	-18.876	1.00	20.65 A
	ATOM	2039	CB	ALA A 338	87.580	14.382	-20.178	1.00	20.29 A
	ATOM	2040	C	ALA A 338	89.357	15.636	-18.933	1.00	22.18 A
	ATOM	2041	O	ALA A 338	90.265	15.665	-19.768	1.00	24.71 A
	ATOM	2042	N	HIS A 339	89.179	16.627	-18.063	1.00	21.90 A
25	ATOM	2043	CA	HIS A 339	90.072	17.785	-18.094	1.00	22.10 A
	ATOM	2044	CB	HIS A 339	89.711	18.762	-16.989	1.00	21.35 A
	ATOM	2045	CG	HIS A 339	90.357	20.097	-17.149	1.00	20.57 A
	ATOM	2046	CD2	HIS A 339	89.891	21.251	-17.683	1.00	19.19 A
	ATOM	2047	ND1	HIS A 339	91.664	20.341	-16.783	1.00	20.52 A
30	ATOM	2048	CE1	HIS A 339	91.973	21.592	-17.085	1.00	22.28 A
	ATOM	2049	NE2	HIS A 339	90.914	22.165	-17.633	1.00	21.96 A
	ATOM	2050	C	HIS A 339	91.555	17.404	-17.963	1.00	22.78 A
	ATOM	2051	O	HIS A 339	91.919	16.600	-17.118	1.00	21.05 A
	ATOM	2052	N	PRO A 340	92.425	17.994	-18.801	1.00	24.12 A
35	ATOM	2053	CD	PRO A 340	92.090	18.973	-19.855	1.00	23.53 A
	ATOM	2054	CA	PRO A 340	93.872	17.724	-18.795	1.00	25.11 A
	ATOM	2055	CB	PRO A 340	94.435	18.864	-19.647	1.00	22.31 A
	ATOM	2056	CG	PRO A 340	93.379	19.015	-20.685	1.00	22.50 A
	ATOM	2057	C	PRO A 340	94.540	17.654	-17.421	1.00	25.66 A
40	ATOM	2058	O	PRO A 340	95.523	16.951	-17.237	1.00	27.43 A
	ATOM	2059	N	PHE A 341	94.011	18.389	-16.459	1.00	25.05 A
	ATOM	2060	CA	PHE A 341	94.596	18.399	-15.139	1.00	24.88 A
	ATOM	2061	CB	PHE A 341	93.897	19.459	-14.276	1.00	24.71 A
	ATOM	2062	CG	PHE A 341	94.482	19.607	-12.893	1.00	24.42 A
45	ATOM	2063	CD1	PHE A 341	95.822	19.947	-12.721	1.00	22.55 A
	ATOM	2064	CD2	PHE A 341	93.685	19.397	-11.758	1.00	22.61 A
	ATOM	2065	CE1	PHE A 341	96.364	20.076	-11.434	1.00	23.65 A
	ATOM	2066	CE2	PHE A 341	94.204	19.522	-10.476	1.00	22.09 A
	ATOM	2067	CZ	PHE A 341	95.547	19.863	-10.304	1.00	24.01 A
50	ATOM	2068	C	PHE A 341	94.511	17.026	-14.486	1.00	25.70 A
	ATOM	2069	O	PHE A 341	95.363	16.665	-13.680	1.00	27.11 A
	ATOM	2070	N	PHE A 342	93.499	16.258	-14.865	1.00	25.51 A
	ATOM	2071	CA	PHE A 342	93.262	14.929	-14.318	1.00	25.34 A
	ATOM	2072	CB	PHE A 342	91.758	14.728	-14.120	1.00	21.93 A
55	ATOM	2073	CG	PHE A 342	91.120	15.728	-13.196	1.00	20.26 A
	ATOM	2074	CD1	PHE A 342	91.556	15.862	-11.888	1.00	20.03 A
	ATOM	2075	CD2	PHE A 342	90.030	16.485	-13.613	1.00	19.36 A
	ATOM	2076	CE1	PHE A 342	90.907	16.731	-11.004	1.00	19.87 A
	ATOM	2077	CE2	PHE A 342	89.377	17.348	-12.744	1.00	18.17 A

	ATOM	2078	CZ	PHE	A	342	89.818	17.470	-11.431	1.00	19.27	A
	ATOM	2079	C	PHE	A	342	93.805	13.815	-15.214	1.00	27.64	A
	ATOM	2080	O	PHE	A	342	93.508	12.630	-15.019	1.00	27.39	A
	ATOM	2081	N	GLU	A	343	94.607	14.203	-16.194	1.00	31.32	A
5	ATOM	2082	CA	GLU	A	343	95.185	13.262	-17.150	1.00	34.29	A
	ATOM	2083	CB	GLU	A	343	96.320	13.950	-17.889	1.00	38.36	A
	ATOM	2084	CG	GLU	A	343	96.735	13.314	-19.197	1.00	45.23	A
	ATOM	2085	CD	GLU	A	343	97.654	14.247	-19.976	1.00	51.01	A
	ATOM	2086	OE1	GLU	A	343	98.266	13.801	-20.981	1.00	51.76	A
10	ATOM	2087	OE2	GLU	A	343	97.755	15.439	-19.568	1.00	52.42	A
	ATOM	2088	C	GLU	A	343	95.690	11.950	-16.542	1.00	33.50	A
	ATOM	2089	O	GLU	A	343	95.289	10.860	-16.970	1.00	33.57	A
	ATOM	2090	N	SER	A	344	96.554	12.049	-15.537	1.00	31.58	A
	ATOM	2091	CA	SER	A	344	97.117	10.857	-14.906	1.00	30.38	A
15	ATOM	2092	CB	SER	A	344	98.447	11.217	-14.253	1.00	29.76	A
	ATOM	2093	OG	SER	A	344	98.243	11.995	-13.096	1.00	30.32	A
	ATOM	2094	C	SER	A	344	96.242	10.150	-13.857	1.00	30.00	A
	ATOM	2095	O	SER	A	344	96.662	9.137	-13.285	1.00	31.14	A
	ATOM	2096	N	VAL	A	345	95.046	10.679	-13.606	1.00	27.28	A
20	ATOM	2097	CA	VAL	A	345	94.135	10.126	-12.609	1.00	25.39	A
	ATOM	2098	CB	VAL	A	345	93.093	11.213	-12.159	1.00	24.17	A
	ATOM	2099	CG1	VAL	A	345	91.973	10.568	-11.347	1.00	19.50	A
	ATOM	2100	CG2	VAL	A	345	93.779	12.321	-11.363	1.00	17.85	A
	ATOM	2101	C	VAL	A	345	93.341	8.885	-13.043	1.00	26.45	A
25	ATOM	2102	O	VAL	A	345	92.813	8.842	-14.154	1.00	27.42	A
	ATOM	2103	N	THR	A	346	93.253	7.890	-12.157	1.00	26.62	A
	ATOM	2104	CA	THR	A	346	92.451	6.680	-12.406	1.00	27.91	A
	ATOM	2105	CB	THR	A	346	93.194	5.388	-11.999	1.00	29.18	A
	ATOM	2106	OG1	THR	A	346	94.345	5.224	-12.830	1.00	33.51	A
30	ATOM	2107	CG2	THR	A	346	92.300	4.171	-12.177	1.00	28.24	A
	ATOM	2108	C	THR	A	346	91.229	6.856	-11.505	1.00	27.53	A
	ATOM	2109	O	THR	A	346	91.297	6.621	-10.299	1.00	29.24	A
	ATOM	2110	N	TRP	A	347	90.117	7.279	-12.094	1.00	27.83	A
	ATOM	2111	CA	TRP	A	347	88.898	7.561	-11.336	1.00	29.15	A
35	ATOM	2112	CB	TRP	A	347	87.878	8.278	-12.224	1.00	27.12	A
	ATOM	2113	CG	TRP	A	347	88.353	9.574	-12.758	1.00	25.48	A
	ATOM	2114	CD2	TRP	A	347	88.252	10.853	-12.118	1.00	24.27	A
	ATOM	2115	CE2	TRP	A	347	88.841	11.803	-12.990	1.00	23.82	A
	ATOM	2116	CE3	TRP	A	347	87.723	11.292	-10.897	1.00	22.42	A
40	ATOM	2117	CD1	TRP	A	347	88.984	9.788	-13.952	1.00	24.47	A
	ATOM	2118	NE1	TRP	A	347	89.279	11.124	-14.099	1.00	23.92	A
	ATOM	2119	CZ2	TRP	A	347	88.913	13.169	-12.678	1.00	21.68	A
	ATOM	2120	CZ3	TRP	A	347	87.797	12.654	-10.586	1.00	24.15	A
	ATOM	2121	CH2	TRP	A	347	88.391	13.575	-11.480	1.00	22.35	A
45	ATOM	2122	C	TRP	A	347	88.218	6.370	-10.700	1.00	30.64	A
	ATOM	2123	O	TRP	A	347	87.617	6.476	-9.631	1.00	31.21	A
	ATOM	2124	N	GLU	A	348	88.318	5.242	-11.376	1.00	32.16	A
	ATOM	2125	CA	GLU	A	348	87.698	4.003	-10.952	1.00	34.98	A
	ATOM	2126	CB	GLU	A	348	88.157	2.890	-11.904	1.00	37.47	A
50	ATOM	2127	CG	GLU	A	348	87.815	3.125	-13.419	1.00	41.39	A
	ATOM	2128	CD	GLU	A	348	88.619	4.257	-14.116	1.00	41.83	A
	ATOM	2129	OE1	GLU	A	348	89.828	4.408	-13.841	1.00	42.27	A
	ATOM	2130	OE2	GLU	A	348	88.036	4.982	-14.959	1.00	42.41	A
	ATOM	2131	C	GLU	A	348	87.843	3.547	-9.478	1.00	34.74	A
55	ATOM	2132	O	GLU	A	348	86.866	3.111	-8.869	1.00	35.95	A
	ATOM	2133	N	ASN	A	349	89.024	3.652	-8.887	1.00	33.61	A
	ATOM	2134	CA	ASN	A	349	89.189	3.179	-7.507	1.00	32.34	A
	ATOM	2135	CB	ASN	A	349	89.936	1.860	-7.529	1.00	33.21	A
	ATOM	2136	CG	ASN	A	349	91.345	2.016	-8.089	1.00	34.48	A

	ATOM	2137	OD1	ASN A 349	91.613	2.943	-8.858	1.00	32.91 A
	ATOM	2138	ND2	ASN A 349	92.247	1.110	-7.712	1.00	35.85 A
	ATOM	2139	C	ASN A 349	89.949	4.136	-6.594	1.00	31.22 A
	ATOM	2140	O	ASN A 349	90.826	3.714	-5.839	1.00	31.07 A
5	ATOM	2141	N	LEU A 350	89.611	5.416	-6.646	1.00	28.54 A
	ATOM	2142	CA	LEU A 350	90.300	6.403	-5.837	1.00	26.75 A
	ATOM	2143	CB	LEU A 350	89.632	7.762	-6.024	1.00	25.89 A
	ATOM	2144	CG	LEU A 350	90.095	8.558	-7.239	1.00	24.21 A
	ATOM	2145	CD1	LEU A 350	89.111	9.674	-7.547	1.00	23.55 A
10	ATOM	2146	CD2	LEU A 350	91.475	9.118	-6.932	1.00	23.67 A
	ATOM	2147	C	LEU A 350	90.440	6.102	-4.345	1.00	27.67 A
	ATOM	2148	O	LEU A 350	91.478	6.401	-3.753	1.00	28.06 A
	ATOM	2149	N	HIS A 351	89.424	5.509	-3.722	1.00	27.81 A
	ATOM	2150	CA	HIS A 351	89.539	5.254	-2.299	1.00	29.88 A
15	ATOM	2151	CB	HIS A 351	88.144	5.197	-1.646	1.00	31.47 A
	ATOM	2152	CG	HIS A 351	87.584	3.823	-1.475	1.00	32.65 A
	ATOM	2153	CD2	HIS A 351	86.926	3.009	-2.338	1.00	34.75 A
	ATOM	2154	ND1	HIS A 351	87.629	3.150	-0.273	1.00	34.31 A
	ATOM	2155	CE1	HIS A 351	87.022	1.981	-0.402	1.00	36.41 A
20	ATOM	2156	NE2	HIS A 351	86.586	1.871	-1.644	1.00	35.36 A
	ATOM	2157	C	HIS A 351	90.396	4.030	-1.978	1.00	30.93 A
	ATOM	2158	O	HIS A 351	90.674	3.741	-0.812	1.00	31.57 A
	ATOM	2159	N	GLN A 352	90.842	3.337	-3.022	1.00	31.09 A
	ATOM	2160	CA	GLN A 352	91.709	2.177	-2.864	1.00	31.86 A
25	ATOM	2161	CB	GLN A 352	91.482	1.187	-3.992	1.00	35.63 A
	ATOM	2162	CG	GLN A 352	91.038	-0.141	-3.497	1.00	40.62 A
	ATOM	2163	CD	GLN A 352	89.739	-0.036	-2.766	1.00	42.39 A
	ATOM	2164	OE1	GLN A 352	88.684	0.133	-3.376	1.00	44.19 A
	ATOM	2165	NE2	GLN A 352	89.802	-0.112	-1.447	1.00	44.81 A
30	ATOM	2166	C	GLN A 352	93.167	2.626	-2.907	1.00	31.39 A
	ATOM	2167	O	GLN A 352	94.030	2.022	-2.271	1.00	31.44 A
	ATOM	2168	N	GLN A 353	93.429	3.685	-3.672	1.00	29.13 A
	ATOM	2169	CA	GLN A 353	94.769	4.237	-3.813	1.00	27.37 A
	ATOM	2170	CB	GLN A 353	94.767	5.283	-4.932	1.00	25.81 A
35	ATOM	2171	CG	GLN A 353	94.250	4.702	-6.242	1.00	26.68 A
	ATOM	2172	CD	GLN A 353	94.035	5.738	-7.330	1.00	26.81 A
	ATOM	2173	OE1	GLN A 353	94.792	6.709	-7.435	1.00	25.21 A
	ATOM	2174	NE2	GLN A 353	93.011	5.520	-8.171	1.00	24.24 A
	ATOM	2175	C	GLN A 353	95.288	4.851	-2.510	1.00	28.25 A
40	ATOM	2176	O	GLN A 353	94.511	5.245	-1.633	1.00	28.38 A
	ATOM	2177	N	THR A 354	96.608	4.907	-2.375	1.00	28.16 A
	ATOM	2178	CA	THR A 354	97.220	5.489	-1.193	1.00	28.54 A
	ATOM	2179	CB	THR A 354	98.564	4.848	-0.889	1.00	29.50 A
	ATOM	2180	OG1	THR A 354	98.354	3.459	-0.624	1.00	31.62 A
45	ATOM	2181	CG2	THR A 354	99.225	5.517	0.334	1.00	27.68 A
	ATOM	2182	C	THR A 354	97.438	6.955	-1.468	1.00	27.76 A
	ATOM	2183	O	THR A 354	98.062	7.307	-2.453	1.00	27.12 A
	ATOM	2184	N	PRO A 355	96.928	7.832	-0.592	1.00	28.37 A
	ATOM	2185	CD	PRO A 355	96.067	7.582	0.573	1.00	27.67 A
50	ATOM	2186	CA	PRO A 355	97.092	9.266	-0.802	1.00	28.53 A
	ATOM	2187	CB	PRO A 355	96.215	9.883	0.291	1.00	28.29 A
	ATOM	2188	CG	PRO A 355	95.210	8.807	0.579	1.00	28.38 A
	ATOM	2189	C	PRO A 355	98.528	9.724	-0.695	1.00	28.85 A
	ATOM	2190	O	PRO A 355	99.290	9.232	0.139	1.00	29.42 A
55	ATOM	2191	N	PRO A 356	98.916	10.676	-1.548	1.00	28.20 A
	ATOM	2192	CD	PRO A 356	98.083	11.340	-2.567	1.00	27.35 A
	ATOM	2193	CA	PRO A 356	100.276	11.213	-1.539	1.00	28.63 A
	ATOM	2194	CB	PRO A 356	100.261	12.199	-2.712	1.00	29.02 A
	ATOM	2195	CG	PRO A 356	98.815	12.633	-2.781	1.00	27.44 A

	ATOM	2196	C	PRO A 356	100.483	11.899	-0.195	1.00	29.18 A
	ATOM	2197	O	PRO A 356	99.543	12.505	0.331	1.00	28.80 A
	ATOM	2198	N	ALA A 357	101.689	11.806	0.368	1.00	29.69 A
	ATOM	2199	CA	ALA A 357	101.942	12.439	1.664	1.00	31.97 A
5	ATOM	2200	CB	ALA A 357	103.273	11.964	2.253	1.00	29.11 A
	ATOM	2201	C	ALA A 357	101.928	13.964	1.528	1.00	33.61 A
	ATOM	2202	O	ALA A 357	102.371	14.507	0.520	1.00	33.81 A
	ATOM	2203	N	LEU A 358	101.390	14.645	2.540	1.00	36.37 A
	ATOM	2204	CA	LEU A 358	101.295	16.110	2.543	1.00	38.03 A
10	ATOM	2205	CB	LEU A 358	99.995	16.554	3.209	1.00	36.49 A
	ATOM	2206	CG	LEU A 358	98.679	16.059	2.641	1.00	35.57 A
	ATOM	2207	CD1	LEU A 358	97.568	16.398	3.620	1.00	35.78 A
	ATOM	2208	CD2	LEU A 358	98.443	16.689	1.278	1.00	37.10 A
	ATOM	2209	C	LEU A 358	102.460	16.743	3.310	1.00	39.05 A
15	ATOM	2210	O	LEU A 358	102.451	16.592	4.553	1.00	39.24 A
	ATOM	2211	OXT	LEU A 358	103.348	17.370	2.679	1.00	40.12 A
	ATOM	2212	OH2	TIP S 1	82.347	32.462	-3.850	1.00	16.08 S
	ATOM	2213	OH2	TIP S 4	80.761	19.051	-18.244	1.00	23.37 S
	ATOM	2214	OH2	TIP S 7	79.269	13.051	-18.353	1.00	22.32 S
20	ATOM	2215	OH2	TIP S 8	86.710	32.919	-1.646	1.00	24.05 S
	ATOM	2216	OH2	TIP S 9	78.564	-0.823	16.465	1.00	28.00 S
	ATOM	2217	OH2	TIP S 10	75.323	16.274	8.538	1.00	18.43 S
	ATOM	2218	OH2	TIP S 12	78.540	24.328	-2.128	1.00	27.08 S
	ATOM	2219	OH2	TIP S 13	91.533	13.928	-17.231	1.00	22.56 S
25	ATOM	2220	OH2	TIP S 14	77.419	-0.445	24.044	1.00	23.98 S
	ATOM	2221	OH2	TIP S 19	72.498	40.164	-3.114	1.00	21.78 S
	ATOM	2222	OH2	TIP S 20	77.303	13.198	-15.393	1.00	22.49 S
	ATOM	2223	OH2	TIP S 21	75.600	-1.063	22.040	1.00	24.29 S
	ATOM	2224	OH2	TIP S 22	90.133	19.697	12.606	1.00	16.61 S
30	ATOM	2225	OH2	TIP S 24	74.810	7.002	5.700	1.00	20.66 S
	ATOM	2226	OH2	TIP S 27	74.894	8.778	-8.074	1.00	23.31 S
	ATOM	2227	OH2	TIP S 28	80.070	33.741	-17.170	1.00	27.29 S
	ATOM	2228	OH2	TIP S 31	74.744	21.007	3.348	1.00	29.98 S
	ATOM	2229	OH2	TIP S 32	97.930	12.301	2.472	1.00	16.75 S
35	ATOM	2230	OH2	TIP S 35	78.412	7.338	3.002	1.00	16.51 S
	ATOM	2231	OH2	TIP S 36	80.172	27.171	1.300	1.00	34.66 S
	ATOM	2232	OH2	TIP S 41	69.773	3.412	17.444	1.00	24.08 S
	ATOM	2233	OH2	TIP S 43	88.878	7.904	10.616	1.00	20.34 S
	ATOM	2234	OH2	TIP S 44	87.375	32.487	-13.928	1.00	31.99 S
40	ATOM	2235	OH2	TIP S 45	91.671	10.803	-16.123	1.00	35.59 S
	ATOM	2236	OH2	TIP S 46	87.637	11.564	23.703	1.00	22.67 S
	ATOM	2237	OH2	TIP S 48	93.353	28.739	3.547	1.00	32.79 S
	ATOM	2238	OH2	TIP S 50	82.283	34.597	-16.032	1.00	23.90 S
	ATOM	2239	OH2	TIP S 52	81.673	8.965	-8.348	1.00	27.83 S
45	ATOM	2240	OH2	TIP S 55	94.012	3.488	1.399	1.00	24.78 S
	ATOM	2241	OH2	TIP S 58	85.735	11.257	-18.436	1.00	27.15 S
	ATOM	2242	OH2	TIP S 61	79.069	-4.638	12.345	1.00	21.04 S
	ATOM	2243	OH2	TIP S 64	103.981	17.563	-7.228	1.00	28.86 S
	ATOM	2244	OH2	TIP S 66	79.020	43.119	5.431	1.00	33.30 S
50	ATOM	2245	OH2	TIP S 69	88.177	36.956	3.079	1.00	30.87 S
	ATOM	2246	OH2	TIP S 75	78.707	27.486	-3.439	1.00	25.25 S
	ATOM	2247	OH2	TIP S 79	80.347	33.345	6.422	1.00	38.57 S
	ATOM	2248	OH2	TIP S 84	64.594	19.493	24.406	1.00	26.01 S
	ATOM	2249	OH2	TIP S 98	70.215	21.980	19.413	1.00	24.75 S
55	ATOM	2250	OH2	TIP S 116	103.456	14.637	-2.925	1.00	41.84 S
	ATOM	2251	OH2	TIP S 120	97.528	14.189	-14.706	1.00	43.27 S
	ATOM	2252	OH2	TIP S 128	103.602	10.418	-1.388	1.00	37.07 S
	ATOM	2253	OH2	TIP S 129	83.353	33.273	4.410	1.00	34.78 S
	ATOM	2254	OH2	TIP S 130	74.116	4.597	-3.022	1.00	27.69 S

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      ATOM   2255  OH2 TIP S 131     73.104   -1.689   21.760  1.00 32.76 S
      ATOM   2256  OH2 TIP S 133    101.510   19.036   -1.083  1.00 28.30 S
      ATOM   2257  OH2 TIP S 134     65.138    6.209   20.472  1.00 27.43 S
      ATOM   2258  OH2 TIP S 135     94.509   36.623  -12.734  1.00 40.27 S
  5   ATOM   2259  OH2 TIP S 136     76.896   11.412  -17.698  1.00 37.17 S
      ATOM   2260  OH2 TIP S 137     97.379    7.497   -6.673  1.00 41.53 S
      ATOM   2261  OH2 TIP S 138     62.239   17.934   24.368  1.00 34.35 S
      ATOM   2262  OH2 TIP S 139     69.630   14.360  -10.771  1.00 38.17 S
      ATOM   2263  OH2 TIP S 140     84.554   44.493   -2.658  1.00 24.74 S
 10   ATOM   2264  OH2 TIP S 141     94.631    8.129   -9.752  1.00 35.45 S
      ATOM   2265  OH2 TIP S 142     78.415    1.021    3.883  1.00 28.60 S
      ATOM   2266  OH2 TIP S 143     99.830   12.987  -10.148  1.00 35.79 S
      ATOM   2267  OH2 TIP S 144     71.235   20.688   11.365  1.00 51.52 S
      ATOM   2268  OH2 TIP S 145     87.138   25.623   11.165  1.00 41.92 S
 15   ATOM   2269  OH2 TIP S 146     60.803   15.332   23.294  1.00 32.69 S
      ATOM   2270  OH2 TIP S 148     73.970   32.165  -13.455  1.00 33.99 S
      ATOM   2271  OH2 TIP S 149     88.146   19.004   17.326  1.00 27.60 S
      ATOM   2272  OH2 TIP S 150     90.803    9.970   18.127  1.00 35.03 S
      ATOM   2273  OH2 TIP S 153     86.261   32.393  -16.403  1.00 41.89 S
 20   ATOM   2274  OH2 TIP S 155    102.147    7.767   -0.215  1.00 38.83 S
      ATOM   2275  OH2 TIP S 159     95.238    0.811   -7.614  1.00 47.22 S
      ATOM   2276  OH2 TIP S 163     92.356   36.543   -5.580  1.00 40.19 S
      ATOM   2277  OH2 TIP S 172     66.640    4.633   22.314  1.00 29.95 S
      ATOM   2278  OH2 TIP S 176     99.303    9.124    3.136  1.00 37.07 S
 25   ATOM   2279  OH2 TIP S 184    104.566   20.517   -7.318  1.00 40.83 S
      ATOM   2280  OH2 TIP S 185     90.295    6.390  -15.433  1.00 34.81 S
      ATOM   2281  OH2 TIP S 186     82.626   12.831    8.023  1.00 23.99 S
      ATOM   2282  OH2 TIP S 187     86.159   18.737   24.618  1.00 32.12 S
      ATOM   2283  OH2 TIP S 188     79.867    7.010   -7.877  1.00 28.52 S
 30   ATOM   2284  OH2 TIP S 189     88.469    4.967    1.404  1.00 45.39 S
      ATOM   2285  OH2 TIP S 190     95.628   28.435  -17.705  1.00 31.73 S
      ATOM   2286  OH2 TIP S 191     76.228    7.822   28.547  1.00 36.76 S
      ATOM   2287  OH2 TIP S 192     85.930    8.936   23.323  1.00 31.58 S
      ATOM   2288  OH2 TIP S 193     73.669   24.555  -14.317  1.00 34.12 S
 35   ATOM   2289  OH2 TIP S 194     99.847   12.959    4.319  1.00 43.06 S
      ATOM   2290  OH2 TIP S 195     76.225   28.669   -3.386  1.00 38.83 S
      ATOM   2291  OH2 TIP S 197     76.955   24.214   20.057  1.00 35.16 S
      ATOM   2292  OH2 TIP S 198     65.723   11.313   28.926  1.00 38.40 S
      ATOM   2293  OH2 TIP S 199     88.482   28.463    4.472  1.00 29.21 S
 40   ATOM   2294  OH2 TIP S 200     71.017   17.440  -13.980  1.00 37.15 S
      ATOM   2295  OH2 TIP S 201     64.967   12.265   13.947  1.00 55.03 S
      ATOM   2296  OH2 TIP S 204     99.611   22.229  -14.818  1.00 46.97 S
      ATOM   2297  OH2 TIP S 205     65.422   -1.944   20.970  1.00 65.13 S
      ATOM   2298  OH2 TIP S 210     89.648    5.683   12.672  1.00 38.65 S
 45   ATOM   2299  OH2 TIP S 213     80.842   40.555    7.721  1.00 37.38 S
      ATOM   2300  OH2 TIP S 214     77.452   22.142   23.411  1.00 36.35 S
      ATOM   2301  OH2 TIP S 216    104.280   21.111  -10.347  1.00 35.15 S
      ATOM   2302  OH2 TIP S 225     84.900   44.787   -5.575  1.00 36.10 S
      ATOM   2303  OH2 TIP S 230     74.759   19.808    9.165  1.00 29.67 S
 50   ATOM   2304  OH2 TIP S 231     76.375    2.991   -2.919  1.00 33.34 S
      ATOM   2305  OH2 TIP S 232     97.252   36.990  -15.430  1.00 39.17 S
      ATOM   2306  OH2 TIP S 233     70.180    4.692    8.907  1.00 29.97 S
      ATOM   2307  OH2 TIP S 234     96.055   11.349   -8.926  1.00 29.40 S
      ATOM   2308  OH2 TIP S 235     70.916   31.535    4.186  1.00 53.99 S
 55   ATOM   2309  OH2 TIP S 236     83.279   23.905   15.245  1.00 40.79 S
      ATOM   2310  OH2 TIP S 237     90.441   34.500    3.752  1.00 37.91 S
      ATOM   2311  OH2 TIP S 238     74.369   15.521  -11.954  1.00 36.85 S
      ATOM   2312  OH2 TIP S 239     82.630    5.971    5.382  1.00 48.63 S
      ATOM   2313  OH2 TIP S 240    101.866   29.649    1.029  1.00 48.93 S
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ATOM	2314	O12	GLC	G	2	74.980	15.310	28.834	1.00	58.25	G
ATOM	2315	C11	GLC	G	2	74.113	15.072	27.724	1.00	58.49	G
ATOM	2316	C13	GLC	G	2	74.885	14.362	26.609	1.00	58.11	G
ATOM	2317	O14	GLC	G	2	73.990	14.120	25.524	1.00	58.57	G
ATOM	2318	C15	GLC	G	2	75.438	13.023	27.096	1.00	57.55	G
ATOM	2319	O16	GLC	G	2	74.357	12.183	27.507	1.00	57.24	G
ATOM	2320	O12	GLC	G	3	68.191	4.312	13.268	1.00	63.76	G
ATOM	2321	C11	GLC	G	3	67.998	3.273	14.231	1.00	63.57	G
ATOM	2322	C13	GLC	G	3	69.274	2.429	14.330	1.00	64.06	G
ATOM	2323	O14	GLC	G	3	69.570	1.858	13.049	1.00	62.75	G
ATOM	2324	C15	GLC	G	3	69.094	1.303	15.364	1.00	63.85	G
ATOM	2325	O16	GLC	G	3	68.010	0.444	14.978	1.00	65.65	G
ATOM	2326	O12	GLC	G	4	87.921	37.473	-13.378	1.00	46.73	G
ATOM	2327	C11	GLC	G	4	88.767	36.757	-14.265	1.00	46.84	G
ATOM	2328	C13	GLC	G	4	90.050	36.439	-13.526	1.00	46.74	G
ATOM	2329	O14	GLC	G	4	90.660	37.648	-13.104	1.00	46.91	G
ATOM	2330	C15	GLC	G	4	90.999	35.678	-14.435	1.00	47.60	G
ATOM	2331	O16	GLC	G	4	92.193	35.413	-13.700	1.00	50.48	G
ATOM	2332	O12	GLC	G	6	78.608	8.519	28.683	1.00	42.02	G
ATOM	2333	C11	GLC	G	6	79.227	8.721	29.956	1.00	44.70	G
ATOM	2334	C13	GLC	G	6	80.218	9.877	29.849	1.00	45.13	G
ATOM	2335	O14	GLC	G	6	81.208	9.537	28.896	1.00	47.43	G
ATOM	2336	C15	GLC	G	6	80.904	10.129	31.180	1.00	46.92	G
ATOM	2337	O16	GLC	G	6	81.611	8.950	31.564	1.00	49.38	G
ATOM	2338	O12	GLC	G	8	83.278	5.163	12.485	1.00	46.74	G
ATOM	2339	C11	GLC	G	8	82.460	3.987	12.559	1.00	50.09	G
ATOM	2340	C13	GLC	G	8	83.236	2.894	13.286	1.00	50.09	G
ATOM	2341	O14	GLC	G	8	84.408	2.621	12.529	1.00	50.75	G
ATOM	2342	C15	GLC	G	8	82.412	1.597	13.414	1.00	52.04	G
ATOM	2343	O16	GLC	G	8	82.051	1.062	12.130	1.00	53.37	G
ATOM	2344	O12	GLC	G	10	87.146	4.682	-5.006	1.00	25.46	G
ATOM	2345	C11	GLC	G	10	85.823	5.086	-5.356	1.00	27.64	G
ATOM	2346	C13	GLC	G	10	85.782	5.498	-6.835	1.00	30.79	G
ATOM	2347	O14	GLC	G	10	86.689	6.600	-7.069	1.00	29.47	G
ATOM	2348	C15	GLC	G	10	84.354	5.916	-7.219	1.00	30.60	G
ATOM	2349	O16	GLC	G	10	83.947	7.022	-6.417	1.00	31.23	G
ATOM	2350	CBI	DRG	L	1	82.223	19.878	9.473	1.00	17.56	L
ATOM	2351	OBH	DRG	L	1	82.835	19.573	10.730	1.00	20.33	L
ATOM	2352	CBG	DRG	L	1	82.419	20.512	11.733	1.00	17.87	L
ATOM	2353	CBF	DRG	L	1	83.661	21.291	12.177	1.00	16.47	L
ATOM	2354	NBK	DRG	L	1	84.171	22.133	11.085	1.00	15.68	L
ATOM	2355	CBJ	DRG	L	1	83.683	23.479	10.751	1.00	12.47	L
ATOM	2356	CBE	DRG	L	1	84.739	20.294	12.600	1.00	16.76	L
ATOM	2357	CBA	DRG	L	1	84.178	19.405	13.715	1.00	18.27	L
ATOM	2358	OBB	DRG	L	1	82.790	19.632	14.017	1.00	18.03	L
ATOM	2359	CBC	DRG	L	1	81.853	19.747	12.937	1.00	18.62	L
ATOM	2360	CBD	DRG	L	1	80.732	20.611	13.524	1.00	14.59	L
ATOM	2361	NAW	DRG	L	1	81.398	18.547	12.551	1.00	18.60	L
ATOM	2362	CAX	DRG	L	1	80.185	18.344	12.014	1.00	15.55	L
ATOM	2363	CAY	DRG	L	1	79.107	19.141	11.643	1.00	13.82	L
ATOM	2364	CAZ	DRG	L	1	77.988	18.555	11.053	1.00	16.37	L
ATOM	2365	CAP	DRG	L	1	77.930	17.180	10.830	1.00	15.88	L
ATOM	2366	CAO	DRG	L	1	78.999	16.366	11.196	1.00	15.07	L
ATOM	2367	CAN	DRG	L	1	80.107	16.973	11.783	1.00	17.80	L
ATOM	2368	CAM	DRG	L	1	81.290	16.377	12.187	1.00	19.34	L
ATOM	2369	CAH	DRG	L	1	81.811	15.087	12.083	1.00	19.93	L
ATOM	2370	CAV	DRG	L	1	82.083	17.407	12.657	1.00	18.53	L
ATOM	2371	CAU	DRG	L	1	83.404	17.144	13.014	1.00	18.70	L
ATOM	2372	NAT	DRG	L	1	84.365	17.964	13.438	1.00	17.82	L

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      ATOM  2373  CAS  DRG  L    1      85.523  17.317  13.610  1.00 15.80  L
      ATOM  2374  CAR  DRG  L    1      86.807  17.682  14.000  1.00 14.23  L
      ATOM  2375  CAQ  DRG  L    1      87.803  16.708  14.047  1.00 13.92  L
      ATOM  2376  CAI  DRG  L    1      87.526  15.384  13.714  1.00 16.21  L
  5   ATOM  2377  CAJ  DRG  L    1      86.244  15.003  13.324  1.00 16.43  L
      ATOM  2378  CAK  DRG  L    1      85.264  15.988  13.278  1.00 17.76  L
      ATOM  2379  CAL  DRG  L    1      83.932  15.867  12.904  1.00 18.99  L
      ATOM  2380  CAG  DRG  L    1      83.130  14.829  12.439  1.00 19.47  L
      ATOM  2381  CAC  DRG  L    1      83.403  13.472  12.290  1.00 18.70  L
 10   ATOM  2382  OAB  DRG  L    1      84.471  12.895  12.480  1.00 18.10  L
      ATOM  2383  NAD  DRG  L    1      82.277  12.904  11.856  1.00 18.49  L
      ATOM  2384  CAE  DRG  L    1      81.128  13.799  11.622  1.00 20.08  L
      ATOM  2385  OAF  DRG  L    1      80.902  13.891  10.214  1.00 24.92  L
      ATOM  2386  S    SO4  I    1      64.638   8.174  16.414  1.00 89.13  I
 15   ATOM  2387  O1   SO4  I    1      65.311   9.465  16.666  1.00 88.78  I
      ATOM  2388  O2   SO4  I    1      63.197   8.413  16.200  1.00 89.62  I
      ATOM  2389  O3   SO4  I    1      64.827   7.262  17.566  1.00 88.49  I
      ATOM  2390  O4   SO4  I    1      65.197   7.555  15.196  1.00 89.77  I
      ATOM  2391  S    SO4  I    3      84.884  -1.751  12.531  1.00 81.17  I
 20   ATOM  2392  O1   SO4  I    3      84.762  -0.302  12.775  1.00 81.32  I
      ATOM  2393  O2   SO4  I    3      84.538  -2.490  13.758  1.00 81.49  I
      ATOM  2394  O3   SO4  I    3      86.280  -2.053  12.162  1.00 81.73  I
      ATOM  2395  O4   SO4  I    3      83.976  -2.163  11.440  1.00 81.19  I
      ATOM  2396  S    SO4  I    5      74.420  22.898  12.677  1.00 85.50  I
 25   ATOM  2397  O1   SO4  I    5      73.256  22.153  12.161  1.00 85.36  I
      ATOM  2398  O2   SO4  I    5      75.637  22.104  12.412  1.00 84.51  I
      ATOM  2399  O3   SO4  I    5      74.250  23.138  14.126  1.00 84.13  I
      ATOM  2400  O4   SO4  I    5      74.527  24.202  11.997  1.00 85.44  I
      ATOM  2401  S    SO4  I    6      68.798   6.993  -3.457  1.00 73.84  I
 30   ATOM  2402  O1   SO4  I    6      68.338   7.338  -4.823  1.00 72.86  I
      ATOM  2403  O2   SO4  I    6      69.298   8.206  -2.791  1.00 73.61  I
      ATOM  2404  O3   SO4  I    6      69.888   6.003  -3.540  1.00 73.52  I
      ATOM  2405  O4   SO4  I    6      67.690   6.426  -2.658  1.00 73.19  I
      ATOM  2406  O2   PO4  P  100      66.501  25.721   2.616  1.00 85.98  P
 35   ATOM  2407  O3   PO4  P  100      64.376  25.028   1.654  1.00 86.96  P
      ATOM  2408  O4   PO4  P  100      65.755  26.653   0.496  1.00 86.51  P
      ATOM  2409  O1   PO4  P  100      64.621  27.279   2.570  1.00 86.98  P
      ATOM  2410  P    PO4  P  100      65.315  26.170   1.832  1.00 87.36  P
      ATOM  2411  S    SO4  X    3      80.775  -0.045   7.874  0.50 22.29  X
 40   ATOM  2412  O1   SO4  X    3      81.160   0.521   9.176  0.50 22.30  X
      ATOM  2413  O2   SO4  X    3      81.320  -1.407   7.778  0.50 22.49  X
      ATOM  2414  O3   SO4  X    3      81.309   0.781   6.777  0.50 23.26  X
      ATOM  2415  O4   SO4  X    3      79.305  -0.088   7.772  0.50 24.36  X
      END
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